

South African Medical Journal

Organ of the Medical Association of South Africa



S.A. Tydskrif vir Geneeskunde

Vakblad van die Mediese Vereniging van Suid-Afrika

Incorporating the South African Medical Record and the Medical Journal of South Africa

REGISTERED AT THE GENERAL POST OFFICE AS A NEWSPAPER

Vol. 25, No. 30

Cape Town, 28 July 1951

Weekly 2s

IN THIS ISSUE

Van die Redaksie : Editorial

Glutamiensuur en Verstandelike Gebrek
Glutamic Acid and Mental Defect

Original Articles

Pott's Disease
Carcinoma of the Cervix
The Newer Antibiotics

New Preparations and Appliances

Passing Events

The Benevolent Fund

Reviews of Books

Association News : Verenigingsnuus

In Memoriam

Correspondence

Support Your Own Agency Department (P. xx)

Ondersteun u Eie Agentskap-Afdeling (Bl. xx)

Professional Appointments (Pp. xxi, xxii)

for intestinal antiseptics



A highly active sulphonamide of low toxicity for the treatment of gastro-intestinal infections and for prophylaxis during intestinal surgery.



MAY & BAKER LTD

distributors

MAYBAKER (SOUTH AFRICA) (PTY.) LTD., P.O. BOX 1130, PORT ELIZABETH

MA48606

MIXED DIET MENUS AND RECIPES

for use in conjunction with

NUTRINE FEEDING

It should be realised that no hard and fast rule can be laid down as to the exact age when the Mixed Diet should be introduced.

The following menus are for babies of average age and weight, and may require considerable adjustment for backward or particularly advanced babies. Here you are asked to make use of the services of our Free Advice Bureau if advice is not available.

Bear in mind that before new foods are introduced the artificial should be well established on the particular food mixture which is being given.

The three-day plan is an excellent one when making changes in food. This gives the mother time to judge whether any particular item is agreed.

If baby cannot tolerate pure COD LIVER OIL, suitable substitutes are recommended in our Mothers Nutrine Guide.

MENU FOR BABIES 5 MONTHS OLD.

6 a.m.	10 a.m.	2 p.m.	6 p.m.
Full Nutrine Feed, 8 ozs. (age end of 4 months).	Cod Liver Oil (15 drops). A taste of coddled egg yolk on a finger of white, baked crust of rusk, twice during the first week, three times the second week, and thereafter daily. When eggs are very expensive the finger of rusk or crust can be given 10 minutes before this feed every day, and 1 teaspoon of raw egg yolk added to the bottle feed, as frequently as recommended for the coddled egg.	Cod Liver Oil (15 drops). After Baby has had the egg yolk at 10 a.m. for 1 week, strained vegetables can be given about 15 minutes before the 2 p.m. bottle feed, on the days when egg yolk is not given. (Follow recipe for Vegetable Broth on page 6.) Give Baby 3 or 4 teaspoons of the Nutrine Feed. Much may be wasted at first, therefore the full bottle feed may be given. After the first week, rub more of the vegetables through the sieve and increase gradually to 2 ozs. The broth can then be given daily, or as a change, and to save labour, give a little Marmite in the proportion of 1 teaspoon to 2 ozs. of warm boiled water. When Baby is taking the full 2 ozs. of strained vegetables or Marmite, this amount should be deducted from the 8-oz. Nutrine Feed.	Cod Liver Oil (15 drops). After Baby has had the egg yolk at 10 a.m. for 1 week, strained vegetables can be given about 15 minutes before the 2 p.m. bottle feed, on the days when egg yolk is not given. (Follow recipe for Vegetable Broth on page 6.) Give Baby 3 or 4 teaspoons of the Nutrine Feed. Much may be wasted at first, therefore the full bottle feed may be given. After the first week, rub more of the vegetables through the sieve and increase gradually to 2 ozs. The broth can then be given daily, or as a change, and to save labour, give a little Marmite in the proportion of 1 teaspoon to 2 ozs. of warm boiled water. When Baby is taking the full 2 ozs. of strained vegetables or Marmite, this amount should be deducted from the 8-oz. Nutrine Feed.

Nutrine Mixture for the Day.—Take the quantities for 5 months on the blue label or red label tins.

1

offered to
doctors . . .

Nutrine is prescribed in almost every instance as a suitable food to be included in the diet of babies from 4 to 5 months old. For this reason the manufacturers, Hind Bros., have prepared a pamphlet on Mixed Diet for use in conjunction with Nutrine feeding and now offer it to Doctors in the hope that it will prove helpful to them and to their patients.

NUTRINE

is Nearest to Nature

MIXED DIET PAMPHLET

To "Mixed Feeding," Dept. 85, Hind Bros. & Co. Ltd., Umbilo, Natal. Please send me a supply of Mixed Diet Menus and Recipes in English/Afrikaans. (Strike out language not applicable.)

NAME.....

ADDRESS.....

South African Medical Journal

Suid-Afrikaanse Tydskrif vir Geneeskunde

Vol. 25, No. 30

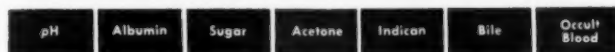
Cape Town, 28 July 1951

Weekly 2s

CONTENTS

Pott's Disease. Dr. C. J. Kaplan (continued) ...	517	The Benevolent Fund ...	533
Van die Redaksie: <i>Glutamiensuur en Verstandelike Gebrek</i> ...	520	Passing Events ...	533
Editorial: <i>Glutamic Acid and Mental Defect</i> ...	520	In Memoriam: Dr. Waiwyn Thomas ...	534
Carcinoma of the Cervix: Treatment with Radio-Active Cobalt ⁶⁰ —The Use of Ring Applicators. Mr. J. Wakley, B.Sc. ...	523	Reviews of Books: <i>Modern Trends in Paediatrics; Intra- venous Procaine; Congenital Heart Disease; Pathology of the Eye; Medical Treatment; Light Diets; Clinical Laboratory Methods; X-ray Diagnosis; Obstetrics; Therapy 1951; Outline of Fractures; Technical Dictionaries; Hos- pital Accounting; Clinical Pathology</i> ...	534
The Newer Antibiotics with Special Reference to Chloro- mycetin. Dr. J. Stanley White ...	526	Correspondence: The Diagnosis of Hypertensive Disease (Dr. H. H. Schulz; Dr. B. G. Shapiro); Interference with Dead Bodies (Dr. W. H. Haupt) ...	537
New Preparations and Appliances: <i>Cellothyl; Privine Pocket Nebulisers</i> ...	529		
Association News: <i>Verenigingsnuus: A Letter to the Chairman, S.A.R. & H. Sick Fund Central Board, S.A.R. Headquarters, Johannesburg; Radiological Society of South Africa; Memor- andum on the Status of the General Practitioner—Views of the Northern Transvaal Branch of the Medical Association</i> ...	530		

**Make these seven important urine tests in one minute
with DROP TEST in your consulting room**



DROP TEST is the *only* kit available that permits you to make a *complete* and clinically accurate on-the-spot chemical examination of urine for pH, albumin, sugar, acetone, indican, bile and occult blood. The entire urinalysis is completed in one minute—a drop of urine and a drop of reagent. Results are easy to read and as precise as conventional methods.

DROP TEST reagents cost much less than standard reagents, but DROP TEST's greatest economy is in the 20 to 1 saving of technicians' time. The kit is unconditionally guaranteed for one full year of stability and accuracy. DROP TEST carries the seal of acceptance of the American Medical Association. Detailed literature is available, without cost or obligation.



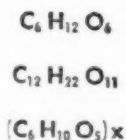
Manufactured in U.S.A. by Biochemical Methods, Inc. Sole distributors for South Africa and the Rhodesias:

PETERSEN, LIMITED

P.O. BOX 38, CAPE TOWN

P.O. BOX 5992, JOHANNESBURG

**Adequate
added
carbohydrate**



A necessity for a well balanced infant formula

Added carbohydrate plays an essential role in the infant formula. In adequate amounts, carbohydrate:

1. Permits normal metabolism of fat, thus preventing acidosis.
2. Promotes optimum weight gain.
3. Allows protein to be used to build new tissues rather than to provide calories.
4. Encourages normal water balance.

Cow's milk—Dextri-Maltose® formulas, successful for 40 years, provide optimum amounts of protein, fat and carbohydrate. In accordance with recommendations of authorities, approximately 15% of the calories are supplied by protein, 35% by fat, 50% by carbohydrate.



A typical formula for a 4-month-old infant would consist of 12 oz. evaporated milk, 20 oz. boiled water, 6 tsp. Dextri-Maltose. Caloric distribution: protein, 15%; fat, 39%; carbohydrate, 46%.



South African Trade Enquiries: Johnson & Johnson (Pty.) Ltd., P.O. Box 727, East London

PACYL

mm Hg

220

210

200

190

The sovereign treatment of essential,
climacteric or arteriosclerotic

HYPERTENSION

and its
concomitant symptoms

— 180

— 170

— 160

— 150

mm Hg



Relief is also afforded to those patients in whom sclerosis is so far advanced as to make any actual reduction in blood pressure impossible, and to those who suffer from vasomotor disorders, which are not accompanied by raised blood pressure.

Supplied in bottles of 50 and 200 tablets.

BASE: A choline derivative, originated and developed in our laboratories.

Woman, age 50, with hypertension.
F. H. LEWY, Z.Klin.Med.
107/1-2.

60 clinical papers have confirmed the therapeutic value of Pacyl, which was awarded the Diploma and Gold Medal at the 7th International Congress of Hygiene, 1933.

VERITAS DRUG COMPANY LIMITED

LONDON AND SHREWSBURY - ENGLAND

For further information and samples apply to our Distributors in South Africa:

LENNON LIMITED - P.O. Box 8389 - JOHANNESBURG

APONDON

For **SAFE** weight reduction
by pharmacologically
DETOXIFIED Thyroid

Considerable Prominence!

Recently, Vitamin B₁₂ has achieved considerable prominence in the field of paediatrics, insofar as anorexia and "indolent food habits" are concerned. Remarkable results have been noted, pointing to the effectiveness of this newly discovered Vitamin in such syndromes.

VITAMIN B₁₂

is offered as

BE-Balt 12

(5 microgramme per tablet)
20's 60's 250's

BE-Balt FORTE

(25 microgramme per tablet)
20's 60's

Manufactured in South Africa by



Established 1842

P.O. Box 38 CAPE TOWN. P.O. Box 5992 JO'BURG



Sir Herbert Barker—the eminent specialist in Manipulative Surgery.

"One of the best services I have ever rendered humanity"

Sir Herbert Barker

THE great Sir Herbert Barker writes: "The damage done by badly fitted shoes has been brought home to me by numberless cases of foot deformation. The mind and the body alike are strongly influenced by comfort or discomfort — especially where one's feet are concerned. If I can persuade the whole world to wear the shoe I have personally designed for per-

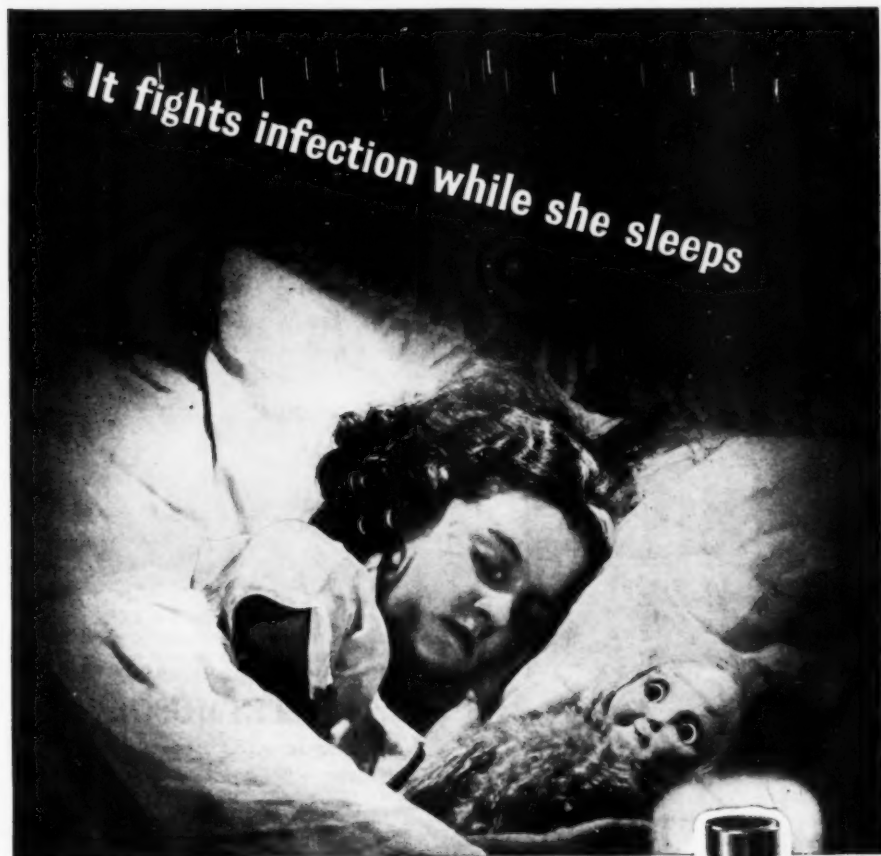
fect comfort, I shall feel it is one of the best services I have ever rendered humanity." Be fair to your feet: wear Sir Herbert Barker Shoes and enjoy perfect foot comfort.

REMEMBER—Always look for
SIR HERBERT BARKER'S
signature inside the shoe.

Sir Herbert Barker Shoes

FOR MEN AND WOMEN—MAKE LIFE'S WALK EASIER

Sir Herbert Barker Shoes are now made by the famous house of B.G. & Co. Ltd., on the original lasts and to the original specifications and under the supervision of Harvic Shoe Co. Ltd., England. All enquiries should be addressed to Harvic (Sales Department), Sir Herbert Barker Shoes, P.O. Box 3015, Port Elizabeth.



It fights infection while she sleeps

THE striking success of 'Sulfex'* in nasal and sinus infections is largely due to its prolonged bacteriostatic action. When 'Sulfex' is given on retiring, for example, sulphathiazole can generally be observed on infected mucosa the next morning—conclusive evidence that bacteriostasis has persisted all night long. The fundamental reason for this prolonged bacteriostatic action is the fact that 'Sulfex' is not a solution but a *suspension* of microcrystalline ('Mickraform'*) sulphathiazole. It covers the nasal mucosa with a fine, even film which does not quickly wash away.

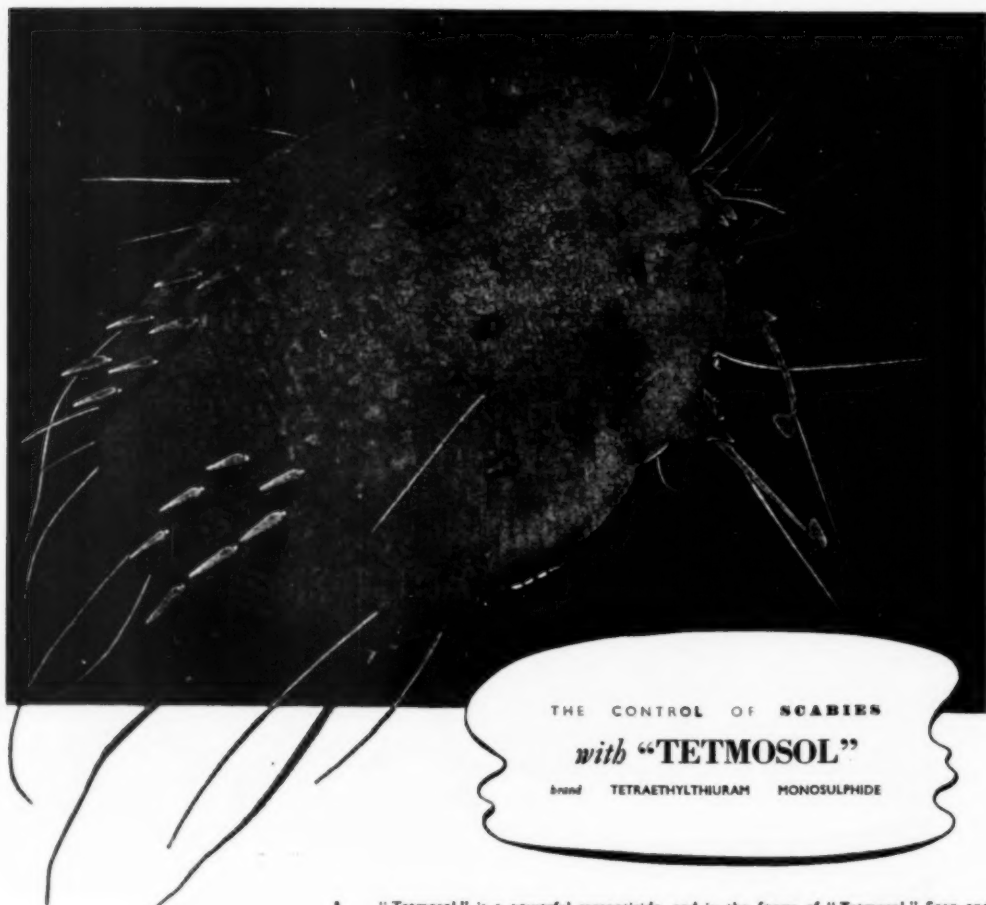


'SULFEX'

*vasoconstriction in minutes . . .
... bacteriostasis for hours*

PHARMACAL PRODUCTS (PTY.) LTD., DIESEL STREET, PORT ELIZABETH
for Smith Kline & French International Co., owner of the trade marks*

2XP413A



THE CONTROL OF SCABIES

with "TETMOSOL"

brand TETRAETHYLTHIURAM MONOSULPHIDE

"Tetmosol" Solution
(25%). Bottles of
100 c.c., 250 c.c. and
2 litres.

"Tetmosol" Soap
(5%). Single 3 oz.
tablets and boxes of
36.

Literature supplied
on request.



"Tetmosol" is a powerful sarcopticide, and in the forms of "Tetmosol" Soap and "Tetmosol" Solution has proved highly effective in both the prophylaxis and treatment of scabies.

The solution (25%), diluted with water before use, provides a most satisfactory and certain method of treatment. It produces a rapid cure of scabies and has the advantage that its application is painless and rarely gives rise to dermatitis.

"Tetmosol" Soap—a pleasantly perfumed soap tablet containing 5% tetraethylthiuram monosulphide—is primarily intended for prophylactic use against scabies.

It has proved especially valuable for controlling outbreaks of the disease in families and in communities such as asylums, hospitals, schools, etc. The method of use is simple and convenient so that the co-operation of the scabies patient is readily secured.

IMPERIAL CHEMICAL (PHARMACEUTICALS) LIMITED

A Subsidiary Company of Imperial Chemical Industries Limited

Distributed by:

I. C. I. SOUTH AFRICA (PHARMACEUTICALS) LIMITED

P.O. Box 7796

Johannesburg

South African Medical Journal

Suid-Afrikaanse Tydskrif vir Geneeskunde

Vol. 25, No. 30

Cape Town, 28 July 1951

Weekly 25

POTT'S DISEASE*

C. J. KAPLAN, M.Ch.Orth., F.R.C.S. (Eng.) †

Durban

(Continued from page 509)

THE COURSE OF THE DISEASE AND THE PROGNOSIS

The three important factors that influence the course of the disease are:—

1. The virulence of the infection.
2. The resistance of the patient.
3. The effectiveness of the treatment.

Often, despite apparently adequate treatment, the disease progresses month after month and in its own time gradually dies out and is followed by slow recalcification and healing. A general rule applicable to all bone and joint tuberculosis is that the disease progresses for about one year, remains stationary for about one year and then improves for about the same period. These periods may be longer or shorter from case to case.

Until recently it seemed that we had little power to influence the course of the disease beyond treatment along general lines. With the advent of antibiotics our role is not as negative as before, but the principal considerations are still to maintain the general health, prevent excessive deformity and treat complications as they arise.

It is impossible to predict the outcome in every case and it is not until the third stage of the disease has been reached that any firm prognosis is possible. A case with minimal bone changes may decline rapidly and die due to a general systemic disturbance, while one with early marked destruction of bone may go through the whole course to healing without any serious complications.

Besides the usual complications of Pott's disease, the occurrence of tuberculosis in other sites, especially central nervous involvement, will influence the final outcome. Fig. 4 shows the incidence of concurrent foci in the Wrightington series, and the influence of these manifestations on the mortality rate. There were eight deaths in the 66 cases of which five were due to meningitis, one to bilateral kidney disease and two to pulmonary disease, giving a 12% mortality rate. In Seddon's series of adult cases (1938) the mortality rate of tuberculosis of the spine alone was 11%, but when the spinal disease was associated with visceral lesions the mortality rate rose to 61%. In this work Seddon also showed that, once past the four-

year mark from the onset of the disease, the mortality is low and the chances of sound bony fusion high.

The main factors to be assessed over a long period in arriving at a prognosis are:

1. The general condition.
2. The progress of the disease and the signs of healing as seen in serial X-rays taken at regular intervals of three months.
3. Erythrocyte sedimentation rates which, if observed regularly during the course of the disease will indicate the slow improvement.

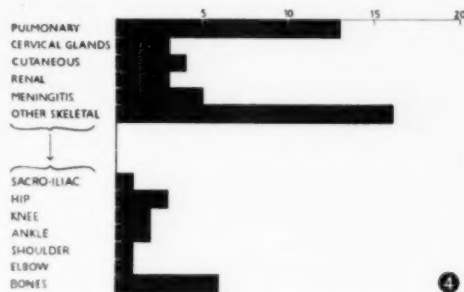


Fig. 4. Frequency of other tuberculous foci in 66 cases of Pott's disease at all ages (Wrightington series).

The column marked 'Other Skeletal' is subsequently broken down into its anatomical components.

TREATMENT

The principles of treatment are as true for Pott's disease as for most other types of tuberculosis. They are:

1. To build up and maintain the general health of the patient.
2. To use such antibiotics and chemotherapy as are known to affect the tubercle bacillus.
3. To rest the diseased part.
4. To promote healing of the diseased tissues by allowing them to collapse.
5. To treat the complications as and when they arise.

General Treatment. The ideal is a sanatorium regime with complete bed rest, good food, fresh air and sunlight for the whole period of treatment. The results of these measures alone on the general health of the patient are little short of amazing.

* The References will be published at the end of the concluding part of this paper.

† Assistant Orthopaedic Surgeon, Addington Hospital.

Visiting Orthopaedic Surgeon, King George V Springfield Hospital, Durban.

Rollier (1926) has laid the basis of heliotherapy which is probably of greater value in the colder Northern climes than it is in South Africa. In fact, over-exposure to a hot sun in the middle of the day is likely to be harmful and if sunlight treatment is practised, care should be taken that the sun is well below its zenith.

The soul-destroying acid of boredom must not be allowed to corrode the lives of these unfortunate patients. Children require proper schooling during their treatment and for adults occupational therapy and vocational training must be provided, especially for those who will have to remuster to more sheltered employment once they leave hospital.

The Use of Antibiotics and Chemotherapy. The mycobacterium does not yet disappear before the magic wand of antibiotics, but some progress has been made. No therapeutic agent can be expected to reach a nidus of infection in the middle of an area of caseation and for this reason is withheld in the chronic destructive stage of the disease; but the impression gained in clinical trials is that Streptomycin is of value in the evolutionary phase of the disease.

Smith and Yu (1950) bear out the writer's impressions that the joints fuse more rapidly under treatment; that there is absence of further extension of the disease process; that there is rapid return of calcification and distinct bony outline; that abscesses and sinuses are prevented, or heal rapidly if present; and that there is an improvement in the general well-being of the patient. Bosworth *et al.* (1950) agree essentially with the above findings.

In the treatment of pulmonary disease para-aminosalicylic acid (PAS) is widely used as an adjunct to Streptomycin. Delaude *et al.* (1949) and the Medical Research Council (1949) indicate that PAS diminishes the chance of development of Streptomycin-resistant strains of tubercle bacilli. For this reason it was felt that they should be used in conjunction in skeletal tuberculosis as well. Madigan *et al.* (1950) point out that PAS causes an increase in the prothrombin time and advise that if surgery is contemplated during a course of treatment, simultaneous prophylactic vitamin K is required. In an effort to delay further the development of Streptomycin-resistant strains, it has been suggested by Tucker (1949), Crofton (1950), and Waksman (1950) that Streptomycin can be given every third day without any impairment of its therapeutic efficiency. In the writer's cases, Streptomycin is given in doses of 1 gm. every third day to a total of 30 gm. with a daily dose of PAS of 8-10 gm. divided in four doses of 2-2.5 gm. each.

Toxic symptoms of PAS (nausea, vomiting and diarrhoea) are treated with Tincture of Belladonna (B.P.) 10 minims with each dose.

Waksman (1950) has recently reported on the use of Neomycin, which is active against Streptomycin-resistant strains. As these strains seem to develop about the fourth month (Madigan, 1950) it is suggested that Neomycin, if used, should be commenced at the end of the course of treatment described above.

Streptomycin is merely an extra string to our bow and not a new weapon superseding all others; there must not be at any time any relaxation of the strict regime of treatment which has been our mainstay until now.

Local Treatment: Conservative. The principles of

treatment by rest—enforced, uninterrupted and prolonged, as propounded by John Hilton (1863) and practised so assiduously by Hugh Owen Thomas (1887) are as important to-day, despite the advances of therapy and surgery, as they were then. The patient is nursed supine on a Thomas' frame. Children should have their legs fixed to the leg-pieces with bandages, merely to discourage movement; traction is unnecessary in the uncomplicated case. Sensible adults can be left free on the frame, but light bandaging may be advisable to discourage movements while sleeping.

If the upper thoracic or cervical spine is affected, the addition of a head-piece is called for with a gallows extension for head traction. Alternatively, a plaster of Paris bed may be used. It is certainly much cheaper, but its disadvantages are that it is heavy, hot and difficult to keep clean; in addition, less of the patient's body is exposed to the air and the important detail of nursing care of the back calls for much work with a turning cast.

Seddon (1935a) has suggested and practised the use of a hyperextension frame during the evolutionary phase of the disease followed by simple recumbency later. He claims that the hyperextended position holds apart the diseased surfaces and thus eliminates the factor of mechanical ulceration, resulting in a smaller total amount of bone destruction. Recumbency must be complete and must continue as long as the disease process is active, and further until re-consolidation of the bone has taken place. Guides to progress are:

1. *Erythrocyte Sedimentation Rate.* Readings should be made every two weeks in the early stages of the disease. In doubtful cases a sedimentation reading taken every five minutes for a full hour gives an indication of the activity of the disease by the speed of sedimentation during the first part of the hour. If these results are charted in the form of a graph, they can be referred to later to indicate progress as shown by a flattening of the curve.

2. *X-rays.* These must be taken at regular intervals so that progress of the disease, from phase to phase, may be studied.

The accepted criteria of healing are:

1. Satisfactory general condition.
2. The knuckle or kyphos should be firm without tenderness.
3. No complications should be present.
4. There should be radiological evidence of healing and re-calcification of the bones.

These criteria should be adhered to as far as possible before the period of recumbency ends. In children this period averages 2½ to three years; but, as has been mentioned, when PAS and Streptomycin have been used from the outset, the impression gained is that the over-all period will be shorter.

The time necessary in adults is much the same, but one is often compelled to get them up before all the criteria are fulfilled, because of deterioration of the general condition from loss of morale after about 18 months' recumbency; in such cases a spinal support is fitted as soon as the progress of the disease is arrested as evidenced by cessation of bony destruction.

Guri (1947) states that in Steindler's clinic the aim is to achieve bony union of the diseased area in addition to the generally accepted criteria, but he admits that this takes at least five years in thoracic Pott's disease, and even then may not occur.

Local Treatment: Operative. Planned surgery for Pott's disease, based on clearly enunciated principles, was

commenced 40 years ago by Albee (1911, 1930, 1933), and Hibbs (1912a, 1912b). These pioneers, whose work is a milestone in the progress of orthopaedic surgery, claimed that they did not interfere with the diseased area but, by performing a posterior spinal fusion, were supplying an internal splint far more effective than any apparatus. Their arguments were so rational as to be accepted by many without question right up to the present day. It was not immediately realized that collapse of the diseased bodies is necessary for healing of the tuberculous focus to occur, and for the subsequent stability of the spinal column. Critical reviews of the results of immediate posterior spinal fusion, both in childhood and adult cases during the evolutionary stage of the disease, show that the results are not wholly satisfactory.

McKee (1936) carried out a survey of late results in his adult cases and showed that they were better following conservative treatment. His figures are instructive and worth quoting (Table II).

TABLE II: (AFTER MCKEE)

Result	Treatment	
	Operative	Conservative
1. General	"	"
Return to normal life ..	32	70
Return to restricted life ..	14	6
Reactivity of lesion ..	32	14
Died ..	22	10
	100	100
2. Spine	"	"
Bony or firm fibrous ankylosis	38	62
Insecure fibrous ankylosis ..	46	36
Large gap or dislocation ..	4	—
Chronic grumbling disease ..	12	2
	100	100

Mayer (1938) in New York compared two series of cases in children from the same hospital. One series was treated by conservative measures and the other by operation followed by a conservative regime. In answer to the question, 'Does operation shorten the course of the disease and prevent deformity?' he found, after demanding strict criteria for cure, that the average duration with conservative treatment was 876 days and with operative treatment 1,215 days. Furthermore, he found no difference in the incidence of paraplegia or in the progress of the deformity in the two series. A further point was the absence of recurrence in the cases treated conservatively and the presence of recurrences after operation.

Seddon (1938), in a similar review of adult cases, showed that posterior spinal fusion caused no significant reduction in the time spent in hospital, or of the time during which a posterior spinal support was required.

Guri (1947), reporting on the conclusions arrived at at Steindler's Clinic over a long period, stated that a posterior spinal fusion does not necessarily produce formation of a sound bony block, nor does it prevent further deformity or spread of the disease or new abscess formation or paraplegia.

Dunn (1948), in discussing the late results of tuberculosis

of the spine in children with special reference to spinal grafting, summarizes his findings with these words: 'There is no evidence that spine grafting in children reduces the mortality or the incidence of re-admission because of complications, or later re-activation, nor does it control the development of a kyphosis.'

The evidence of these observers seems to point to the fact that the posterior spinal fusion has no place in the treatment of Pott's disease. This valuable operation, however, is called for in combating the results of the disease. The absolute indications for spinal fusion are:

1. Pain at the kyphosis, not due to active disease but to an unsound fibrous ankylosis.
2. Increasing deformity after healing, in high thoracic lesions.
3. A feeling of insecurity in a patient who has to do heavy labour.
4. A lateral tilt or lateral shift of the spine.

Wilkinson (1950) noticing the general improvement following costo-transversectomy in cases of Pott's paraplegia, has applied this to Pott's disease without neurological involvement. He has practised curettage of the carious area of bone and evacuation of the paravertebral abscess and claims that his cases have been improved. This treatment certainly is not orthodox, but no opinion will be passed on the author's claims.

After-Treatment. When the accepted criteria of healing are fulfilled and recumbency is no longer necessary, a spinal support is supplied to the patient. Any type of support that will prevent flexion of the spine is satisfactory and a Thomas' posterior support is certainly the cheapest and most effective for the majority of cases. The purpose of the support is to prevent further deformity and not to correct the existing deformity. Where the deformity is severe, a support may have to be worn for many years, or even permanently, but the average case requires the appliance for about three years and is then able to discard it. Children must usually wear their supports until they have grown out of them, when they can be discarded; but if there is any doubt about the stability of the spine, another should be supplied. In cases of high thoracic disease a Thomas' collar is built on to the support to prevent the weight of the head from increasing the deformity. In cervical disease a collar only is required. The collar described by Commerell (1950) is light and strong and gives excellent support.

A strict quarterly follow-up should be instituted for the first year after discharge from hospital and after that cases should be seen and X-rayed every six months. Any sign of re-activation of the process calls for immediate resumption of recumbency. No attempt should be made to correct the deformity of the spine, as this can only lead to re-activation of the disease or to a configuration of the spine incompatible with body mechanics.

Sir Robert Jones once described 50 cases treated by the Cabot technique of immediate forceful obliteration of the deformity; he did not describe the late results nor did he continue the treatment after the turn of the century.

Waldenstrom (1924) has described massive posterior grafting after gradual correction, but this is no longer practised. The deformity must be accepted as the price paid for a stable spinal column.

(To be concluded)

South African Medical Journal

Suid-Afrikaanse Tydskrif vir Geneeskunde

VAN DIE REDAKSIE

EDITORIAL

GLUTAMIENSUUR EN VERSTANDELIKE GEBREK

Dit sou 'n gebeurtenis van groot betekenis wees indien 'n stof gevind kon word wat menslike intelligensie verhoog. Baie duisende gebrekkiges wat grensgevalle is, sou dan in staat gestel word om 'n plek in die maatskappy te vind, en dié met 'n groter stremming in verstandelike ontwikkeling kon minstens geleer word om vir hulleself beter te sorg. Die aanspraak wat gemaak word daarop dat glutamiensuur so 'n stof is, verdien dus sorgvuldige oorweging.

Afgesien daarvan dat dit beweer word so 'n uitwerking op die intelligensiepeil te hê, is glutamiensuur van aansienlike biochemiese belang. Dit skyn 'n belangrike stof te wees in die metabolisme van die brein.¹ Daar is bewyse wat aandui dat die brein glutamiensuur kan gebruik indien die glukosevoorraad faal² en dat dit die enigste aminosuur is wat deur die brein opgebou word.

Zimmerman en Ross³ het gevind dat glutamiensuur die vermoë by rotte verhoog om doolhofroetes te leer. Dit is bevestig deur ander navorsers⁴ wat gebruik gemaak het van 'n ingewikkelder dooltoestel. Daarenteen het verskeie ondersoekers⁵⁻⁷ nie hierdie verbetering in behendigheid by knaagdiers bevestig nie.

In 1946 het Zimmerman *et al.*⁸ melding gemaak van 'n proefneming waarin glutamiensuur ses maande lank toegedien is aan nege kinders, waarvan sewe epilepties en twee verstandelik vertraag was. Vyf van hulle het opgehou om toevalle te kry en almal behalwe die twee jongste kinders het 'n groter verbetering in intelligensie getoon as wat weens die tydsverloop kon verwag word. Die gemiddelde styging in die I.Q.-uitslag was nege punte. Hulle het geopper⁹ dat dit 'n ontwikkelings tempo uitmaak twee maal so vinnig was as wat in 'n jaar verwag kon word by 'n kind met normale intelligensie. Die epileptiese kinders het daarbenewens egter fenobarbiton gekry wat op sigself vir 'n aansienlike mate van kliniese verbetering verantwoordelik kan gewees het. Meer nog, verskeie ondersoekers^{10,11} kon nie bevestig dat glutamiensuur stuiptrekkings teenwerk nie.

GLUTAMIC ACID AND MENTAL DEFECT

It would be an event of great moment if a substance could be found which increases human intelligence. Many thousands of defectives on the borderline of normality would then be enabled to find a place in society, and those with a larger arrest of intellectual development might at least be educated to care more satisfactorily for themselves. The claim that glutamic acid is such a substance therefore requires careful consideration.

Glutamic acid, quite apart from its alleged effect on the level of intelligence, is of considerable biochemical interest. It appears to be an important substance in cerebral metabolism.¹ There is evidence to suggest that the brain can utilize glutamic acid if the glucose supply fails,² and that it is the only amino acid metabolized by the brain.

Zimmerman and Ross³ found that glutamic acid enhanced maze learning in rats. This was confirmed by other workers⁴ using a more complicated problem-box. On the other hand, several investigators⁵⁻⁷ failed to confirm this rodent performance improvement.

In 1946 Zimmerman *et al.*⁸ reported an experiment in which glutamic acid was administered for six months to nine children, of whom seven were epileptic and two mentally retarded. Five of the children ceased to have fits, and all but the two youngest children showed a greater improvement in intelligence than could have been expected from the lapse of time alone. The average rise in the I.Q. result was nine points. They suggested⁹ that this was a rate of development twice as rapid as could be expected during a year in a child of normal intelligence. However, the epileptic children in addition received phenobarbitone, which alone may have been responsible for some considerable clinical improvement. Furthermore, several investigators^{10,11} were unable to substantiate the claim that glutamic acid had an anti-convulsant action.

1. Stern, J. R. *et al.* (1949): *Biochem. J.*, **44**, 410.
2. Dawson, R. M. C. (1950): *Nature*, **165**, 178.
3. Zimmerman, F. T. en Ross, S. (1944): *Arch. Neurol. Psychiat.*, **51**, 446.
4. Albert, K. E. *et al.* (1944): *Science*, **108**, 281.
5. Marx, M. H. (1948): *J. Comp. Physiol. Psychol.*, **41**, 82.
6. Hamilton, H. C. en Maher, E. B. (1947): *J. Comp. Physiol. Psychol.*, **40**, 463.
7. Stellar, E. en McElroy, W. D. (1948): *Science*, **108**, 281.
8. Zimmerman, F. T. *et al.* (1946): *Arch. Neurol. Psychiat.*, **56**, 489.
9. Zimmerman, F. T. *et al.* (1947): *Psychosomat. Med.*, **9**, 175.
10. Goodman, L. S. *et al.* (1946): *Arch. Neurol. Psychiat.*, **56**, 20.
11. Wagner, J. R. en Elvehjem, C. A. (1944): *J. Nutrition*, **48**, 131.

1. Stern, J. R. *et al.* (1949): *Biochem. J.*, **44**, 410.
2. Dawson, R. M. C. (1950): *Nature*, **165**, 178.
3. Zimmerman, F. T. en Ross, S. (1944): *Arch. Neurol. Psychiat.*, **51**, 446.
4. Albert, K. E. *et al.* (1944): *Science*, **108**, 281.
5. Marx, M. H. (1948): *J. Comp. Physiol. Psychol.*, **41**, 82.
6. Hamilton, H. C. en Maher, E. B. (1947): *J. Comp. Physiol. Psychol.*, **40**, 463.
7. Stellar, E. en McElroy, W. D. (1948): *Science*, **108**, 281.
8. Zimmerman, F. T. *et al.* (1946): *Arch. Neurol. Psychiat.*, **56**, 489.
9. Zimmerman, F. T. *et al.* (1947): *Psychosomat. Med.*, **9**, 175.
10. Goodman, L. S. *et al.* (1946): *Arch. Neurol. Psychiat.*, **56**, 20.
11. Wagner, J. R. en Elvehjem, C. A. (1944): *J. Nutrition*, **48**, 131.

"TAMPOVAGAN"

(Regd.)

PESSARIES

"Tampovagan" Pessaries are issued as follows:

- Lactic Acid 5%₀
- Ichthylol 5%₀
- Ichthylol 10%₀
- Choleval 1%₀ (Silver Proteinate)
- Stilboestrol and Sulphathiazole
- Penicillin (5,000 i.u.) and
- P.S.S. (Penicillin-Sulphanilamide-Sulphathiazole)

ALL TAMPOVAGAN GLOBULES (except Tampovagan with P.S.S. and with pure penicillin) are of a glycerine-gelatin base, which is non-irritating, dissolves speedily at body temperature and absorbs the oedematous fluid from the tissues, thus reducing the inflammatory state and the rate of discharge, and enhancing the action of the main ingredients.

Tampovagan globules containing penicillin have a cocoa-butter base because penicillin was found to be incompatible with gelatine.

DOSAGE:

One Tampovagan globule to be inserted into the vagina every night before retiring to bed, and in the morning approximately 30 minutes before rising.

PACKINGS: BOXES OF 8

CAMDEN CHEMICAL CO. LTD.

61 Gray's Inn Road, London, W.C.1., England
Telephone: Holborn 7524 Telegrams: "Camkemco, Holb.", London

Sole South African Agents:

WESTDENE PRODUCTS (PTY.) LTD.

22-24 ESSANBY HOUSE, 175 JEPPE STREET, JOHANNESBURG P.O. BOX 7710 PHONE: 23-0314

CAPE TOWN: 408/9 CTC Buildings, Plein Street Phone 2-2276 DURBAN: Alliance Buildings, Gardiners Phone 2-4975
PRETORIA: Central House, Central Street Phone 3-3487 PORT ELIZABETH: P.O. Box 607

(a) TAMPOVAGAN WITH LACTIC ACID 5%₀
Indications:
Leucorrhoea due to neglected pessaries, cervical tears, hormonal disturbances, mild infections.

(b) and (c) TAMPOVAGAN WITH ICHTHYOL 5%₀ AND 10%₀
Indications:
All degrees of inflammatory changes of the vagina and of the cervix in particular. Tampovagan with ichthylol 10% should be used in strong inflammatory conditions, with ichthylol 5% in milder cases only.

(d) TAMPOVAGAN WITH CHOLEVAL 1%₀ (SILVER PROTEINATE)
Indications:
Mild inflammatory changes of the vagina with medium discharge due to mild infection, or as a continuation of therapy after a course of Tampovagan with P.S.S.

(e) TAMPOVAGAN WITH PENICILLIN (5,000 i.u.)
Each globule contains 5,000 i.u. of penicillin in a cocoa-butter base.
Indications:
All cases of vaginal fluor in which the causative organism is known to be sensitive to penicillin, in cases showing an idiosyncrasy towards sulpha drugs, or where sulphonamides have been previously employed and have not achieved the desired therapeutic results.

(f) TAMPOVAGAN P.S.S. (PENICILLIN, SULPHANILAMIDE AND SULPHATHIAZOLE)
These contain 5,000 i.u. of penicillin with 0.25 g. of sulphanilamide and sulphathiazole.
Indications:
All primary and secondary infections due to organisms sensitive to penicillin and/or sulphonamides. Gonorrhoea, syphilis, streptostaphylo and pneumococci, etc.

(g) TAMPOVAGAN WITH STILBOESTROL AND SULPHATHIAZOLE
Indications:
Senile vaginitis, B. coli infections, hypo-oestrogenised function, etc.

Taka-Combex Kapseals

NUTRITIONAL SUPPLEMENT AND STARCH DIGESTANT

As the water-soluble vitamins are only stored in small amounts in the tissues, they are quickly depleted as a result of nutritional inadequacy, impaired digestion or increased metabolism. Depletion may occur when the appetite is poor or the diet restricted, or when the need for these vitamins is increased during pregnancy and lactation, in advancing age, febrile illnesses and convalescence.

In such conditions, vitamin deficiency symptoms may be avoided or corrected by the administration of Taka-Combex Kapseals, which contain important factors of the vitamin B complex and vitamin C, with Taka-Diastase, a potent diastatic enzyme which affords a valuable aid to carbohydrate digestion.

Dose: Two Kapseals three times daily just before meals. After 10 days or two weeks dosage may be reduced to 1 Kapseal three times daily.

Each Kapseal contains:

Taka-Diastase	2½ grains
Vitamin B ₁ (Aneurine Hydrochloride)	10.0 mgm.
Vitamin B ₂ (Riboflavin)	10.0 mgm.
Vitamin B ₆ (Pyridoxine Hydrochloride)	0.5 mgm.
Pantothenic Acid	3.0 mgm.
Nicotinamide	10.0 mgm.
Vitamin C (Ascorbic Acid)	30.0 mgm.
With other components of the Vitamin B complex from Liver.	

Supplied in bottles of 50 and 500 Kapseals



PARKE, DAVIS & COMPANY, LIMITED • HOUNSLOW, near LONDON

Inc. U.S.A.

Further information from any branch of LENNON LTD.

THE IDEAL INSTRUMENT FOR VENOUS PRESSURE

The PHLEBAUMANOMETER (Burch and Winsor) is a precision instrument for determining blood pressure in large and small veins . . . quickly, accurately, and without loss of blood. It is also unequalled for spinal pressure use.

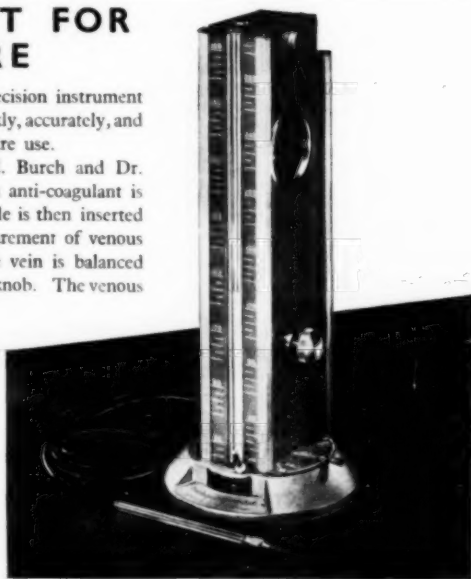
The simple technique used is that devised by Dr. George E. Burch and Dr. Travis Winsor of the Tulane University Medical School. An anti-coagulant is drawn up into the needle and observation tube and the needle is then inserted into the vein. A small gauge needle is used, permitting measurement of venous pressure in small as well as large veins. The pressure in the vein is balanced manually with the PHLEBAUMANOMETER pressure control knob. The venous pressure in millimeters of water is read directly from the graduated scale.

Does not require the doctor to establish a "point of reference". Only the observation tube, needle & holder need be sterilised. Evaluation of venous pressures by this simple, safe and accurate method is now indicated in cardiovascular conditions.

STOCKED BY ALL RELIABLE SURGICAL INSTRUMENT DEPOTS

GURR SURGICAL INSTRUMENTS (PTY.) LTD.

Harley Chambers, Kruijs Street, Johannesburg P.O. Box 1562



Albert *et al.*¹² het gevind dat glutamiensuur die agt pasiënte wat hulle bestudeer het, wakkerder, opletter en meer volhardend gemaak het in hulle pogings om die take wat aan hulle voorgelê is, baas te raak; beheer oor die emosies het skynbaar ook verbeter.

As einduitslag van hulle navorsing oor glutamiensuur het Zimmerman en sy medewerkers¹³ in 1948 onomwonde gesê dat glutamiensuur verstandsvermoëns by die bestudeerde mense versnel het. Die bespoediging was algemeen en nie beperk tot gedeeltes van die persoonlikheid of intelligensie nie. Hulle verslag het oor 30 kinders gehandel, by wie die gemiddelde styging in die I.K.-toets 11 punte was. Die grootste verbetering in intelligensie het binne die eerste ses maande voorgekom, waarna die tempo verminder en sy perke skynbaar bereik het, na 'n jaar van behandeling.

Oppervlakkig lyk hierdie bevindings bemoedigend; maar daar moet besef word dat glutamiensuur as middel vir die behandeling van verstandelike agterlikheid nog veelal in die eksperimentele stadium verkeer. Hierdie stadium deel glutamiensuur met ander voorgestelde behandelingsmetodes wat tans op die proef gestel word, want glutamiensuur is maar één rigting waarlangs aanslae gemaak word op verstandelike agterlikheid.

Daar is bevind dat die verwydering van die halwe brein 'n intellektuele gebrek en fisiese ongeskiktheid van sekere tipes van pasiënte wat by geboorte beskuldig is verbeter;¹⁴ hierdie soort behandeling is nog in sy beginstadium en mag nuttige resultate oplewer. 'n Franse navorser¹⁵ het onverwagte aanspraak daarop gemaak dat inlaten van lug in die brein van ernstig vertraagde kinders (by wyse van lumbale pneumo-enkefalografie), 'n merkwaardige verandering te weeg bring in die gedrag van kinders en dat dit selfs vir hulle opvoedbaar maak; hy erken dat mislukkings dikwels genoeg voorkom. So 'n aanspraak moet klaarblyklik meer algemene bevestiging kry voordat dit 'n aanvaarbare metode van behandeling word.

Harrel¹⁶ het aan 'n gekontroleerde groep weeshuiskinders daaglik 'n ekstra 2 mg. Tiamien gegee en het aan die einde van haar proefneming tot die slotsom gekom dat die gemiddelde verbetering by kinders wat die toegevoegde Tiamien gekry het, ongeveer 27% bo dié van die kontrolegroep was. 'n Ander navorser¹⁷ beskryf 'n verbetering in sommige aspekte van sosiale gedrag en intelligensie by 'n groot groep verstandelik gebrekkiges wat daaglik met 3 mg. Tiamien behandel is, met die gevolg dat daar soms so 'n styging was in die verstandelike aktiwiteit, dat die toediening van Tiamien gestaak moes word. Hy het besluit dat alhoewel daar stygings in die I.K. was, dit gering was.

Voordat ernstige aandag geskenk kan word aan die wydverrekte opvatting dat glutamiensuur die verstandelike vermoëns van die mens gunstig kan beïnvloed, is dit noodsaaklik om na te gaan hoe voldoende die kontrole-proefnemings gedoen is. Weliswaar die ondersoek is

Albert *et al.*¹² found that glutamic acid made the eight patients they studied more alert, attentive and persistent in trying to accomplish the tasks put before them; emotional control also appeared to improve.

As a culmination of their researches on glutamic acid, Zimmerman and his co-workers¹³ in 1948 stated unequivocally that glutamic acid accelerates mental functioning in human subjects. The acceleration was general, and not restricted to segments of the personality or intelligence. Their report dealt with 30 children, in whom the average rise in the I.Q. test result was 11 points. The greatest improvement in intelligence occurred within the initial six months, after which the acceleration was diminished and appeared to approach its limit after one year of treatment.

These findings sound encouraging, on superficial examination; but it must be realized that glutamic acid as a means of therapy in mental deficiency is still very much in an experimental stage. This is a phase glutamic acid shares with other suggested means of treatment undergoing trial at the present time, for glutamic acid is but one line in the experimental onslaught on mental defectiveness.

It has been found that the operation of hemispherectomy improves the intellectual defect and physical disability of certain types of patients who have suffered a birth trauma¹⁴; this line of treatment is still in its infancy and may yield profitable results. A French worker¹⁵ has made the unexpected claim that the insertion of air into the brain of seriously backward children (by lumbar pneumoencephalography) produces a remarkable transformation in the behaviour of children, even to the extent of making them educable; he admits that failures are frequent enough. Such a claim must obviously receive more general substantiation before it becomes an acceptable method of treatment.

Harrel¹⁶ gave a controlled group of orphanage children an extra 2 mg. of Thiamine daily, and at the end of her experiment concluded that the average improvement of the children receiving the additional Thiamine was about 27% above that of the control group. Another worker¹⁷ describes an improvement in some aspects of social behaviour and intelligence in a large group of mental defectives treated with 3 mg. of Thiamine daily, sometimes resulting in such an increase in mental activity that the Thiamine had to be discontinued. He concluded that although increases in the I.Q. were noted, these were slight.

Before serious attention can be paid to the much publicized view that glutamic acid can influence human mental capacity favourably, it is essential to scrutinize the adequacy with which the control experiments have been performed. Admittedly, in the nature of the investigation, the problem is a difficult one. It is well recognized amongst psychologists that the mere repetition of an

12. Albert, K. E. *et al.* (1946): *J. Nerv. Ment. Dis.*, **104**, 263.

13. Zimmerman, F. T. *et al.* (1948): *Amer. J. Psychiat.*, **104**, 593.

14. Krynauw, R. A. (1950): *Hierdie Tydskrif*, **24**, 539.

15. Golse, M. J. (1949): *Ann. Med.-Psychol.*, **107**, 439.

16. Harrel, R. F. (1943): *Columbia University Contribution to Education*, No. 877.

17. Rudolf, G. de M. (1950): *J. Ment. Sci.*, **96**, 265.

12. Albert, K. E. *et al.* (1946): *J. Nerv. Ment. Dis.*, **104**, 263.

13. Zimmerman, F. T. *et al.* (1948): *Amer. J. Psychiat.*, **104**, 593.

14. Krynauw, R. A. (1950): *S. Afr. Med. J.*, **24**, 539.

15. Golse, M. J. (1949): *Ann. Med.-Psychol.*, **107**, 439.

16. Harrel, R. F. (1943): *Columbia University Contribution to Education*, No. 877.

17. Rudolf, G. de M. (1950): *J. Ment. Sci.*, **96**, 265.

uiteraard 'n moeilike probleem. Sielkundiges erken dit algemeen terdee dat net die herhaal van 'n intelligensietoets genoeg mag wees om die uitslag van die I.K.-toets te verhoor, ten spyte daarvan dat daar geen vorm van behandeling of onderrig voorkom by die doen van die toets by twee verskillende geleenthede nie. Sommige navorsers het selfs hierdie verbetering voortspruitende uit die herhaling van toetse as 'verrassend' beskryf.¹⁸ Die toereikendheid van die kontroleproefnemings waarop die gunstige uitwerking van glutamiensuur gegrond is, is egter in twyfel getrek.¹⁸

Intussen het dit uit die jongere verslae duidelik geword dat die aansprake wat vir glutamiensuur gemaak is, maar van korte duur mag wees. Milliken en Standen¹⁹ het onlangs as volg besluit: 'Die uitslae van die begripstoetse gee geen bewys ten voorkeure van die veronderstelling dat glutamiensuur die begripvermoë verbeter nie, behalwe in die geval van een groep van normale seuns by wie se bevindings daar geringe dog dubbelsinnige bewyse ten gunste van die veronderstelling geblyk het.'

Loeb en Tuddenham²⁰ (wat 33 swaksinnige persone, meestal opgesketenes sonder vallende siekte of ander senuwee-moelikhede bestudeer het) het geen belangrike verskil tussen die kontrolegroep en die eksperimentele persone gevind nie. Daar is dus besluit dat 'n *heilsame uitwerking van glutamiensuur by die behandeling van swaksinniges onbewese is*. Dit is ook die mening van Kerr en Szurek.²¹

Die golf van gesdrif wat die propaganda oor die gebruik van glutamiensuur vir verstandelike agterlikheid vergesel het, het slegs daartoe gedien om valse hoop op te wek en daar skyn geen regverdiging te wees vir die gebruikmaking van hierdie metode van behandeling in private praktyk nie. Op sy beste kan daar slegs toegegee word dat 'n *prima facie* saak uitgemaak is om die aanspraak te ondersoek onder streng en behoorlik gekontroleerde wetenskaplike omstandighede.

Daar kan in elk geval met 'n mate van sekerheid gesê word dat daar op die oomblik geen regverdiging is vir die toediening van glutamiensuur aan persone met uiterste verstandsgebrek nie en by wie 'n intelligensietoename van ses punte onbelangrik sou wees. Dit sou dus ten seerste ongelukkig wees indien verwagtings wat nie bewaarheid kon word nie by die ouers van subnormale kinders aangevaker word.

Dit is ook belangrik om in herinnering te bring dat, al sou daar iets steek in die metode van behandeling met glutamiensuur, die amiensuur onsmaklik is en moeilik om te neem. Op die oomblik is dit in Suid-Afrika beskikbaar slegs in die vorm van tablette van 0.5 gm. en 'n behandelingsreeks wat 90 tablette per dag vereis, sou die ongelukkige slagoffer van die proefneming verplig om ongeveer 32,850 tablette per jaar te sluk teen 'n koste van 16s. 1d. per 100 tablette. Aangesien hierdie behandeling twee jaar lank sou mag voortduur, sou één proefneming omstreeks £500 kos. Dit is dus geen uitgemaakte saak of 'n private pasiënt aan 'n geldelike las onderwerp moet word, waarvoor daar werklik só 'n klein beloning te wagte is nie.

Intelligence test may be sufficient to raise the I.Q. test result, in spite of the fact that no form of treatment or instruction intervenes between the performance of the same test on two different occasions. Some investigators have even described the improvement resulting from repetition of the tests as 'startling'.¹⁸ The adequacy of the control experiments on which the favourable effects of glutamic acid are based has, however, been challenged.¹⁸

Meanwhile it becomes obvious from the more recent reports that the claims made for glutamic acid may be nothing more than a seven-day wonder. Milliken and Standen¹⁹ recently concluded: 'The results of the cognitive tests provided no evidence in favour of the hypothesis that glutamic acid improves cognitive functioning, except in one group of normal boys, whose findings yielded slight but equivocal evidence in favour of the hypothesis.'

Loeb and Tuddenham²⁰ (who studied 33 feeble-minded persons, mostly adolescents without epilepsy or other neurological involvement) found no significant difference between the control group and the experimental subjects. It was therefore concluded that a *beneficial effect of glutamic acid in the treatment of feeble-mindedness has not been demonstrated*. This is also the opinion of Kerr and Szurek.²¹

The wave of enthusiasm which has accompanied the propaganda about the use of glutamic acid in mental defect has served only to raise false hopes and there seems no justification for pursuing this method of treatment in private practice. At the very highest it can only be conceded that a *prima facie* case has been made out for a scientific investigation of the claim under rigorous and properly controlled conditions.

In any event, it can be stated with some certainty that at present there can be no justification for administering glutamic acid to grossly defective persons, in whom a rise in intelligence of six points would be immaterial. It would, therefore, be unfortunate in the extreme if unrealizable expectations were fostered in the parents of subnormal children.

It is also important to recall that, even if there were anything in the glutamic acid mode of treatment, the amino acid is unpalatable and difficult to take. At present it is available in South Africa only in the form of 0.5 gm. tablets and a course of treatment which requires 90 tablets a day would require the unfortunate victim of the experiment to swallow some 32,850 tablets a year at a cost of 16s. 1d. per 100 tablets. As this treatment may have to be continued up to two years, the price of one experiment would be in the neighbourhood of £500. No case has been made out for submitting any private patient to such economic hardship with so little expectation of any genuine reward.

18. Annotation in Brit. Med. J., 18 November 1950, bl. 1161.

19. Milliken and Standen (1951): J. Neurol. Neurosurg. Psychiat., 14, 47.

20. Loeb and Tuddenham (1950): Pediat., 6, 72.

21. Kerr, W. J. and Szurek, S. A. (1950): Pediat., 5, 645.

18. Annotation in Brit. Med. J., 18 November 1950, p. 1161.

19. Milliken and Standen (1951): J. Neurol. Neurosurg. Psychiat., 14, 47.

20. Loeb and Tuddenham (1950): Pediat., 6, 72.

21. Kerr, W. J. and Szurek, S. A. (1950): Pediat., 5, 645.

CARCINOMA OF THE CERVIX: TREATMENT WITH RADIO-ACTIVE COBALT⁶⁰

THE USE OF RING APPLICATORS

J. WAKLEY, B.Sc.

Biophysics Section, National Physical Laboratory, Pretoria

In the past, the only satisfactory means of treating carcinoma of the cervix by radiation has been by the use of radium. Numerous methods, e.g. the Paris, Stockholm and Manchester techniques, have been evolved. With the increasing availability of radio-active isotopes produced in the atomic pile, there exists the possibility of substituting artificial sources of ionizing radiations for the naturally occurring radium sources.

Although radium has the advantage of an extremely long half-life, so that there is no necessity for any decay correction factor during its use, it has certain disadvantages. The most obvious of these is its high purchase price—£8,000 per gramme. Part of this cost is due to the expensive containers, which must be completely air-tight to prevent the danger of radon leakage, and must be made of a high atomic number material, such as platinum, to filter out many of the longer wave length radiations present in the gamma-ray spectrum of radium. Since the radium is in the form of a salt, which must be packed into rigid containers, flexibility can be achieved only by utilizing a number of small units.

PROPERTIES OF RADIUM AND COBALT⁶⁰

Radio-active cobalt⁶⁰ has already been experimented with as an alternative for radium, and a brief comparison of the physical properties of each illustrates why this substitution is possible.

The ease of production of radio-active cobalt⁶⁰ in the 'pile' reduces its cost to £40 per curie, or only one three-hundredth the cost of an equivalent amount of radium. This takes into account the fact that at a fixed distance, the dosage rate from one millicurie of cobalt⁶⁰ is about 1.6 times the dosage rate from one milligramme of radium, with a filtration of 0.5 mm. Pt.

The decay schemes of radium and its daughters are quite complicated, and the gamma rays emitted consist of some 20 different energies giving a mean energy of 1.7 Mev. calculated from ionization measurements.² Cobalt⁶⁰, however, has a simple decay scheme (Fig. 1) and the two gamma rays have a mean energy of 1.2 Mev. While it may be a disadvantage that the gamma rays are not as penetrating as those from radium, the cobalt⁶⁰ does not require any high atomic number material to absorb the softer gamma-ray components as in radium, so there is no loss in intensity of radiation due to such an absorber.

The decay product of cobalt⁶⁰ is stable nickel⁶⁰, and there are therefore no dangerous gaseous radio-active daughters, which would necessitate perfectly sealed containers. A thin covering only is required to absorb the beta rays, and to isolate the cobalt from surrounding tissue, on which it has a toxic effect.³ This lack of a rigid covering allows greater flexibility with cobalt⁶⁰ which, in the form of wire, mesh or sheet, may be used in applicators of almost any desired shape.

The most obvious disadvantage of cobalt⁶⁰, as compared with radium, is its relatively short half-life of 5.3 years. Even though it is one of the longest-lived among the artificial gamma-ray emitters, a correction of approximately 1% is required to the dosage rate each month.

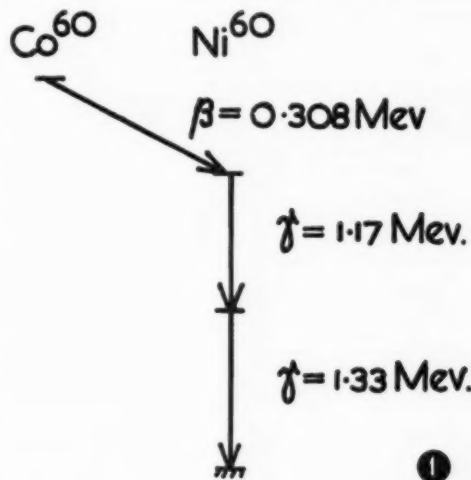


Fig. 1. Decay scheme of Cobalt⁶⁰.

However, if a $\pm 5\%$ variation in the dosage rate of an external gamma-ray source is permissible, no correction would be necessary up to 10 months. After this period applicators can, if desired, be sent for re-irradiation in the 'uranium pile', the irradiation time necessary depending on the specific activity required, e.g. after a 10-month decay of a 20 mC. source, weighing 230 mg., the 'hotting-up' in the Harwell pile should take four weeks.

Further points for consideration include the fact that the primary beta-ray emission from cobalt⁶⁰ possesses a much lower energy (0.3 Mev. maximum) than radium (3.1 Mev. maximum). In addition, the secondary electron emission from self-absorption of gamma rays in the cobalt⁶⁰ is less than that from platinum acting as a filter for radium gamma rays. These two properties indicate that in the case of cobalt there will be less likelihood of necrosis in adjacent tissue due to beta-ray exposure.

Some disadvantages of cobalt⁶⁰ lie in the practical difficulties experienced in the handling of the brittle cobalt, in obtaining pure material to be irradiated, and in the uncertainty of reproducibility of source activities

inside the pile. These represent obstacles which may be overcome with experience.

DESIGN OF COBALT⁶⁰ RING APPLICATOR

During the course of 1950 Dr. J. van Rooijen of Cape Town wished to use a flexible pessary, loaded with a gamma-ray source, in the treatment of certain cases of cancer of the cervix. He thought it would be possible to use radio-cobalt and, as all orders for radio-isotopes imported into South Africa must go through the Council for Scientific and Industrial Research, he communicated with this laboratory. Since the National Physical Laboratory is equipped to handle and standardize radioactive materials, it was agreed that the best procedure would be to have the rings made up and the dosages measured here.

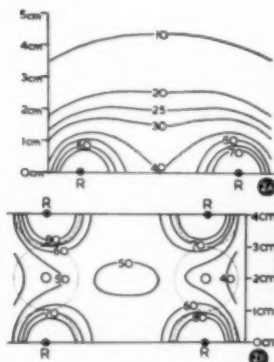


Fig. 2a. Section of radiation field produced by ring RR, diameter 5 cm, with 0.985 mc/cm² of Cobalt⁶⁰ loading. Numbers on curves represent r/hr.



Fig. 2a. Section of radiation field produced by 2 active rings RR, separated by 1 inactive ring OO, with a 1 cm. thick covering on each.

Fig. 2c. X-ray film of completed applicator.

In some of the cases Dr. van Rooijen had in view he wished to use a pessary as large as space would permit. It was therefore desirable that the ring should be capable of withstanding compression, and of returning to its original shape when *in situ*.

The distribution of dosage in a plane perpendicular to a ring of radio-active material and along a diameter has been calculated by van Rooijen¹ (Fig. 2a). In instances in which the lesion was confined to the cervix, and in which the size of the cervix and the space in the fornices would permit of the insertion of such a pessary around the cervix, it would be possible to produce a field of homogeneous radiation if a suitable inactive spacing ring were put between two radio-active rings, and if the covering were of sufficient thickness to contain the higher dosage rates close to the active material (Fig. 2b).

Where local action of shallow depth was required the rings could be used alone and, if irradiation of the whole pelvis was required, they could be used in conjunction with external sources of radiation. Smaller rings of this type could also be used to replace assemblies of radium con-

tainers as employed in conventional methods of intra-vaginal radium treatment of cancer of the cervix.

The type of ring requested by Dr. van Rooijen required a rubbery style of envelope containing a thin springy wire. A convenient alternative to rubber may nowadays be found in the wide range of plastic compounds available. One of these, a thermoplastic resin,^{*} was chosen as the enveloping material. The thermoplastic resin is in the form of a pre-mix, containing a plasticizer, heat stabilizer and other subordinate ingredients. The pre-mix or paste may be poured into a mould, and on heating it to a given temperature, there is an almost instantaneous transition to an elastic solid state.

CONSTRUCTION AND LOADING OF RINGS

Moulds were made out of aluminium or brass (Fig. 3) to produce annuli of semi-circular section; the thermoplastic resin was poured into the mould and heated at 150°-160° C for about 10 minutes. The 'half-rings' so formed were of a milky colour and reasonably pliable.

Two half-rings were grooved to receive the cobalt wire before they were joined. An attempt to burn the complete groove with a full circle of heated wire was unsuccessful, as it was difficult to lay the 'burning' wire flat on the face of the ring; consequently it tended to stick when being removed and so to be distorted, thus requiring new alignment. The technique adopted for cutting the groove was to use a piece of tinned copper wire about 1 inch long, bent to the required curvature. This was heated to red heat and lowered on to the flat face of the half-ring along a previously marked line. A small length of groove was burnt in and by repeating the process round the ring, the complete groove was made.

One half-ring was loaded with the cobalt wire, which was embedded in the existing groove. The handling of the 'hot' wire was minimized by arranging for it to be given the correct curvature and to be cut into four quadrants before irradiation. The flat surface of each of the two half-rings was then coated with a thin layer of paste on each side of the groove and the two halves were placed in the moulds, which had also been thinly coated with paste. The moulds were fastened together with slight pressure, which was applied by means of a nut and bolt passing through the centre. The assembly was heated at 150°-160° C for about 10 minutes.

The two halves so sealed together formed a complete ring, and a thin envelope of plastic over the whole protected the seal, which was the weakest point in the applicator.

After the second heating the plastic became semi-transparent and the cobalt wire was visible when the applicator was held to the light; hence no marking was required to distinguish the active rings from the inactive spacing rings. An X-ray film (Fig. 2c) taken of one completed applicator, shows the wire to have remained in the correct position during sealing.

Three sizes of ring have been made to date with the following dimensions (Fig. 3):—

Inner Diameter (a)	Outer Diameter (b)
3.0 cm.	7.0 cm.
2.0 cm.	5.0 cm.
1.5 cm.	3.5 cm.

Measurement of Dose Rate. This was carried out by direct calibration against a known quantity of radium. The volts lost at a fixed distance from 9.85 mg. of radium (0.5 mm. Pt filtration) under as near scatter-free conditions as possible, were determined, using four M.R.C. dosage chambers and, assuming a dose rate of 8.3 r/hr at 1 cm. from 1 mg. radium, the volts lost per roentgen were found for each chamber. The chambers were then exposed in turn for a measured time at the centre of the cobalt⁶⁰ applicators, and from the measured volts lost the dosage rate was arrived at. This was found to be lower than the theoretically predicted amount by

* 'Welvic' paste supplied by Imperial Chemical Industries, Ltd., incorporating dibutyl phthalate as the plasticizer.

approximately 10%, which may have been due partially to the absorption in the plastic covering, which contained an unknown quantity of lead salt stabilizer, and also to self-absorption of the cobalt wire. It was therefore decided to investigate the absorption effect of the plastic.

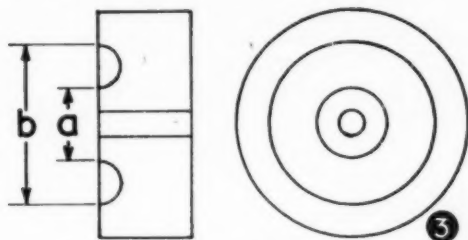


Fig. 3. Section and plan of applicator mould.

ABSORPTION MEASUREMENTS ON THE PLASTIC

A Geiger-Müller counter, GEC type GM4 (end window of 6 mg./cm.² duralumin) was used for the absorption measurements. The counter, in a simple cylindrical lead castle, was supported by a structure which was light and fairly free from scattering material. The cobalt source, a piece of 26 S.W.G. cobalt wire, 0.1 inch long, was mounted on a piece of cellophane, so that back-scatter from the mount was negligible and the absorbing layers of plastic, made by casting in flat dishes, 3 mm. deep, were supported on plastic strips between the source and the counter window.

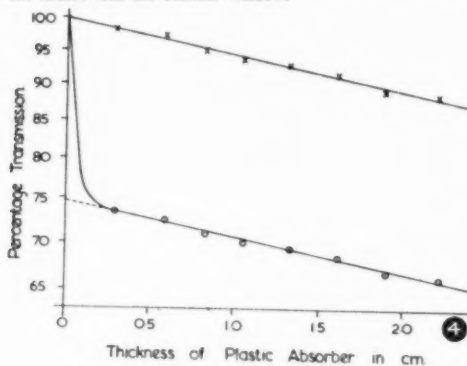


Fig. 4. Absorption of rays from cobalt⁶⁰.

A curve of percentage transmission plotted logarithmically against absorber thickness (Fig. 4) shows an initial sharp drop due to the absorption of the beta rays from the cobalt⁶⁰ and then assumes a near linear relationship. Interpolating back to zero absorber thickness the true gamma-ray absorption curve is arrived at and the value of the mass absorption coefficient from this compares well with the more accurately determined values of Mayneord and Cipriani⁵ for other materials. From this curve it is seen that 1 cm. thickness of the plastic makes a difference of only 5% on the dosage rate. Self-absorption in the cobalt wire (0.457 mm. diameter) causes another 1% reduction in the dosage rate.

This still leaves a difference of about 5% between theoretical and measured dose rates, which is not accounted for.

TRANSPORT OF APPLICATORS

The radio-active cobalt wire was received from A.E.R.E., Harwell, in lengths corresponding to quadrants of the circle they were required for with the necessary curvature; the Council for Scientific and Industrial Research 'wing-tip' transport⁶ was used for this.

Once the wire was incorporated in the applicators, these were too large for 'wing-tip' transport and therefore had to be sent by rail. A container was made up to comply with recommendations laid down overseas. Protection was achieved both by distance and shielding effects: the applicators were housed in a wooden container (Fig. 5).

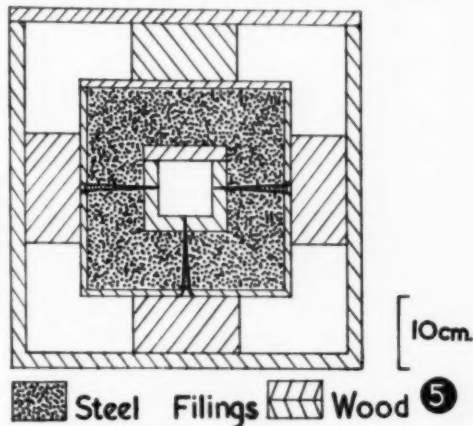


Fig. 5. Section through crate used for road and rail transport of Co⁶⁰ ring applicators.

surrounded by a larger box full of steel filings of total thickness 9 cm. all round. Outside this second box was a third crate, giving an extra spacing of 10 cm. From measurements the half-value layer of the steel filings was ~ 3 cm.

Hence, the theoretical dose rate at the surface of the outside crate with the largest consignment to date (2×21 mc.) was 113 mr/hr; measured by means of a gamma-ray monitor it was found to be 100 mr/hr at the surface.

SUMMARY

The physical properties of radium and cobalt⁶⁰ are compared and cobalt⁶⁰ is seen to possess certain advantages as a substitute for radium as an external gamma-ray source.

The design, construction and loading of a cobalt⁶⁰ ring applicator for use in treatment of carcinoma of the cervix are described and the dose distributions from one applicator and two applicators suitably spaced, are illustrated.

A description of the measurement of dose rate at the centre of such rings by comparing with radium is given and a 10% deviation from theory noted. Results of absorption measurements show half of this error to be due to absorption in the applicator, but a 5% variation is still unaccounted for.

Mention is also made of the use of 'wing-tip' transport to convey the cobalt⁶⁰ from England, and of a specially protected container for transport of the completed applicators by road and rail.

I am indebted to Dr. J. van Roojen for initiating this work and for his advice on the design of the applicators, and to Miss Tikvah Alper, whose suggestions during all phases of the work proved invaluable. My thanks are also due to Miss I. Reeler and Mr. D. Smith for the technical assistance they gave.

This paper is published with the permission of the South African Council for Scientific and Industrial Research.

REFERENCES

1. *Introductory Manual on the Control of Health Hazards from Radioactive Materials*. Prepared for the Medical Research Council by the Ministry of Supply, Atomic Energy Research Establishment, Issue No. 2, January 1949.
2. Gray, L. H. (1937): *Proc. Roy. Soc.*, **159**, 272.
3. Mayneord, W. V., Lamerton, L. F. and Nickson, M. (1949): *Nature*, **164**, 613.
4. Van Roojen, J. (1937): *Brit. J. Radiol.*, **10**, 653.
5. Mayneord, W. V. and Cipriani, A. J. (1947): *Canad. J. Res.*, **25**, 311.
6. Halliday, E. C. and Alper, T. (1950): *Nature*, **166**, 110.

THE NEWER ANTIBIOTICS

WITH SPECIAL REFERENCE TO CHLOROMYCETIN*

J. STANLEY WHITE, M.R.C.S., L.R.C.P. (LOND.), PH.D.

Director of Clinical Investigation, Parke, Davis & Company, London

Since the discovery of Penicillin by Fleming in 1929, about 150 substances have been isolated from moulds, fungi, bacteria and algae, which will antagonize or destroy micro-organisms. Unfortunately, the majority are too toxic for therapeutic use.

Penicillin was derived from a fungus, *Penicillium notatum* and, so far, it is the only therapeutically significant antibiotic of fungal origin. Nearly all the newer antibiotics are produced by soil Actinomycetes. The Streptomycetes, which belong to this group, have yielded Streptomycin, Chloromycetin, Terramycin, Aureomycin and the very recent Viomycin.

The newer antibiotics differ from Penicillin and Streptomycin in that they are effective when administered by mouth. They were all originally prepared by the deep fermentation process, as is still the case with Penicillin, Streptomycin, Aureomycin and Terramycin, but Chloromycetin is outstanding in that it has been synthesized. It is, in fact, the first and only antibiotic to be synthesized on a practical basis.

Penicillin, Streptomycin, Aureomycin and Terramycin have complex chemical structures, and while it is true that a gramme or two of Penicillin has been synthesized at enormous cost, it is extremely doubtful whether these antibiotics will ever be produced synthetically on a large scale.

Chloromycetin or, to give it its generic name, Chloramphenicol, has a relatively simple structure. Chemically it is a substituted di-hydroxy-propane. As far as we know this is the first time Nature has produced a compound containing the dichloroacetamido and nitro groups.

Examination of the antibiotic spectrum (Fig. 1) shows that the range of Chloromycetin is much broader than that of Penicillin and Streptomycin. Not only is this new antibiotic strikingly effective against gram-negative organisms and, to a lesser extent, against gram-positive

organisms, but for the first time we have at our disposal an antibiotic which has a dramatic effect against rickettsiae which range in size between the bacteria and the viruses. It is also effective against a number of the larger viruses. Aureomycin is probably rather more active against the Staphylococcus than is Chloromycetin. On the other hand, Chloromycetin is infinitely more effective against the Salmonella group than is either Aureomycin or Terramycin.

It may be that we shall find micro-organisms becoming resistant to these newer antibiotics, although this has not to date been demonstrated to any marked extent *in vivo*. After all, in the early days we heard very little of Penicillin-resistant strains. It is, of course, another example of Nature adapting herself to new conditions.

Blood Levels. Chloromycetin is quickly absorbed and the onset of its action is rapid. Effective blood-levels are attained in 30 minutes after oral administration. As a general rule the daily dose should be 50 mg. per kg. of body-weight, in divided amounts, doubling the dose for children. Experience has shown that the interval between the doses should never be longer than eight hours in order to prevent the concentration of the drug from falling below the minimum effective level, which is about 10 microgrammes per c.c. of serum.

Typhus. Scrub typhus and typhoid fever were the two infectious diseases that responded so dramatically to Chloromycetin in the first trials carried out by Smael¹ and his colleagues in Malaya. Mention should also be made of the pioneer work by Payne² on epidemic typhus in Bolivia. It is perhaps unnecessary to say much about the rickettsial group of infections except to emphasize that in cases of epidemic typhus, scrub typhus, tick typhus and Q fever Chloromycetin is extraordinarily effective, in doses of 60 mg. per kg. of body-weight, followed by doses of 0.25 gm. every three hours or 0.5 gm. every six hours until the patient becomes afebrile.

More recently it is reported from Malaya³ that patients have responded to a single dose of 3 gm. and required no further treatment, although if the patient is not responding further doses should be given to a total of 6 gm.

* Communicated to a joint meeting of the Cape Town Post-Graduate Medical Association and Cape Western Branch of the Medical Association of South Africa, 28 February 1951.

Typhoid. It is no longer considered desirable or necessary to give a loading dose of Chloromycetin in typhoid fever. When we hear of vasomotor collapse following the administration of Chloromycetin in typhoid and paratyphoid fevers, it is generally associated with the loading dose originally suggested by Woodward and his colleagues in Malaya, and may conceivably be due to the liberation of endotoxins, or perhaps more correctly stated, lysis of the organisms.

We now think in terms of 60 mg. of Chloromycetin per

results have been obtained amongst the British troops stationed in the Canal Zone in Egypt. The dose of T.A.B. vaccine should be small, 0.02 c.c. (in other words, 60 million organisms daily) for 10 days after the patient has become afebrile.

Unfortunately, Chloromycetin is ineffective in eradicating the chronic typhoid 'carrier' state. According to Smadel,³ the balance between the host, the parasite and the immune mechanism is already established, and the added factor of a transient suppressant, such as

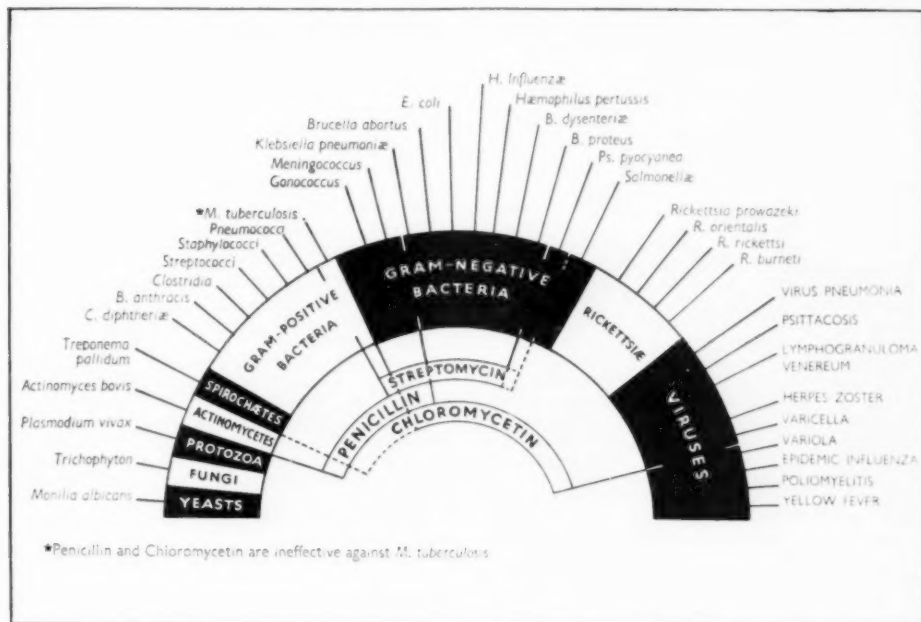


Fig. 1. The Antibiotic Spectrum

kg. of body-weight as a daily dose in typhoid fever. In a man weighing 10 stone this would mean 4 gm. in the 24 hours, reducing the dose by half when the patient becomes afebrile, which is usually between the third and fourth day, after which it is important that treatment should be continued for a further 10-14 days. Even with this scheme of dosage there has been an appreciable number of relapses. Fortunately, the patient invariably responds to a further course of treatment. In fact, it is rather striking that the response is even more dramatic than when Chloromycetin is given in the first instance, presumably because the patient's defensive mechanism has already got to work.

The use of anti-typhoid-paratyphoid vaccine in conjunction with Chloromycetin¹ has resulted in a drop in the relapse rate from 20-25% to 4.5%. These striking

Chloromycetin, is unlikely to produce much in the way of a permanent effect on the bacterium.

Cholera. The cholera vibrio is very susceptible to Chloromycetin, the inhibiting range being 1 to 5 microgrammes per millilitre. Unfortunately, cholera develops so rapidly, and the patient becomes dehydrated so quickly, that treatment by an antibiotic is almost precluded. On the other hand, Chloromycetin has been shown to be an extremely effective prophylactic agent,⁴ although the cost of the drug would militate against its general use for this purpose.

Infantile Gastro-Enteritis. This condition responds in almost dramatic fashion to Chloromycetin. Smellie⁷ is satisfied that with an adequate dosage—he uses 165 mg. per kg. of body-weight (in other words, 75 mg. per lb.) daily in divided doses—the average case will respond to

treatment in from 10-12 days. The cases I refer to come within the group usually designated non-specific gastroenteritis. Some authorities take the view that the infection is due to a specific type of *B. coli* named B.G.T.

Chloromycetin has also proved successful in cases of infantile diarrhoea due to the Shigellae, and those in which there is no primary intestinal infection and where the symptoms are attributable to infections in other parts of the body, such as chest, ear, throat and urinary tract.

Enteritis. Chloromycetin is also very effective in other forms of enteritis, such as bacillary dysentery and food poisoning. The latter has taken a new form in England. In the past the symptoms were believed to be produced by toxins traceable to foods which had either been directly infected—duck eggs are an excellent example—or contaminated by animal excretions. According to Grant,⁸ about three years ago a change occurred in the Salmonellae enabling them to live in the human intestine and pass from man to man. He attributes the change to the repeated consumption of living Salmonellae in imported egg powder, which unfortunately we had to use in large quantities during the war owing to difficulties in the food supply.

Urinary Infections. Amongst the microbial diseases which respond to Chloromycetin and the other newer antibiotics are bacillary and coccal urinary infections.

Apart from the fact that Chloromycetin has a marked antibiotic action on micro-organisms invading the urinary tract, the success which has followed its use is due to its high concentration in the urine following moderate dosage. Here again a suitable dose is 3 gm. daily, in divided doses, continuing the treatment for five to seven days after the urine has been cleared of the principal invader, or until operative measures have ensured eradication of the focus.

If necessary Penicillin, Streptomycin or the sulpha drugs may be used concurrently with Chloromycetin.

Pertussis. In England pertussis is responsible for a mortality rate of 1,000 per annum. *Haemophilus pertussis* is extremely sensitive to Chloromycetin, and provided the dosage is adequate—according to one authority⁹ it should be at least 100 mg. per kg. each night for five nights—the results have been most encouraging. My own experience has been that when Chloromycetin fails in whooping cough it is entirely a question of inadequate dosage.

Pneumonias. Bacterial pneumonia, whatever the causative organism, as well as atypical or virus pneumonia, respond to Chloromycetin and Aureomycin. Both antibiotics have received much attention in England during the recent influenza epidemic. Unfortunately, I cannot subscribe to the observation that has been made from time to time that these newer antibiotics seem to have a direct effect on the virus of influenza. I take the view that the excellent results that have followed Chloromycetin and Aureomycin in epidemic influenza have been due to the fact that they satisfactorily deal with the secondary infection, notably the *Haemophilus influenzae*.

Surgical Infections. To date Chloromycetin, and presumably the same applies to the other newer antibiotics, does not appear to have been widely investigated as a prophylactic and therapeutic agent in surgical infections, but it should have considerable possibilities in this

direction. Cellulitis, lymphangitis, lymphadenitis and abscess caused by pyogenic cocci respond rapidly to Chloromycetin, the afebrile stage terminating in the majority of cases within 72 hours.

Chronic wound infections of mixed bacterial aetiology show less response to Chloromycetin, and in some instances the concurrent use of Penicillin would seem to be indicated. Contrary to what has been suggested, Chloromycetin and Penicillin do not appear to be antagonistic *in vivo*.

It is not difficult to prophesy that Chloromycetin will be shown to be a valuable agent not only in surgical prophylaxis but in post-operative surgical infections, and post-partum sepsis following complicated obstetrical deliveries, to cite only two examples.

Other microbial infections which respond to Chloromycetin include undulant fever, *Haemophilus influenzae* infections, sub-acute bacterial endocarditis and the venereal diseases.

Venereal Diseases. In acute gonorrhoea in males an effective dose is 3 gm. initially, followed by 1 gm. every eight hours for two or three days to prevent relapse.

Despite the fact that Chloromycetin exhibits a low anti-treponemal action *in vitro*, Romansky¹⁰ and his colleagues have reported good results with Chloromycetin clinically. These investigators noted that the mechanism of action of Chloromycetin differed from that of Penicillin in that healing of the lesions appeared to originate at the base instead of the periphery.

Non-specific urethritis also responds to Chloromycetin. I have seen a case of Reiter's disease which responded extremely well to this new antibiotic.

Virus Diseases. Chloromycetin is not effective against the smaller viruses, poliomyelitis, epidemic influenza and yellow fever. It appears to have no effect on the viraemia in smallpox, although it is useful in dealing with the septic condition.

Mumps, chicken-pox, herpes zoster, infectious mononucleosis and trachoma all seem to be favourably influenced by this new synthetic antibiotic. In mumps the condition appears to respond in 24 to 48 hours to the average doses for the various age groups. In no instance has orchitis developed in a patient after initiation of treatment with this drug.

Clinical evidence indicates a high order of specificity for Chloromycetin in the treatment of herpes zoster.¹¹ In 24 hours a definite improvement has been noted, and complete recovery has followed with no relapse or residual pain. It is not effective in the post-herpetic stage.

The results in infectious mononucleosis are very striking. One may expect the patient to become afebrile within 24 hours after the commencement of treatment.

Trachoma. On the assumption that trachoma is a virus infection, Chloromycetin has been administered orally with encouraging results. Pijoan¹² has reported that within 24 hours of the oral administration of Chloromycetin, photophobia and lachrymation were substantially diminished, and this was followed in a few days by approximately an 80% reduction of corneal lesions and inflammation.

Distinguished ophthalmologists in London have confirmed the findings of Leopold¹³ and his co-workers in Philadelphia that Chloromycetin is unique amongst the



CREST

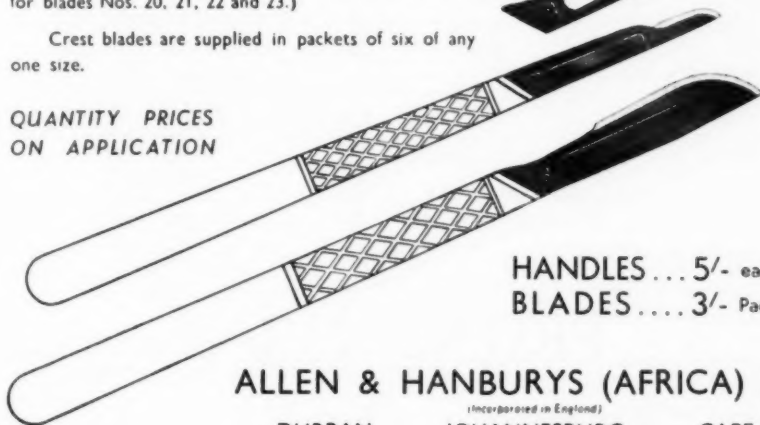
INTERCHANGEABLE SURGICAL BLADES FOR USE WITH STANDARD HANDLES

Crest knife blades and handles have been designed to meet the most up-to-date requirements of the Surgeon. Each blade is made from the finest Sheffield steel, specially rolled, hardened, tempered and tested to ensure the keenest edge. The slot in the blade is of standard size to facilitate ease of fitting with maximum security.

Crest knife handles are made with standard fittings and have an untarnishable matt surface (No. 3—Small size, for blades Nos. 10, 11, 12 and 15. No. 4—Large size, for blades Nos. 20, 21, 22 and 23.)

Crest blades are supplied in packets of six of any one size.

**QUANTITY PRICES
ON APPLICATION**



HANDLES... 5/- each
BLADES... 3/- Packet of 6

ALLEN & HANBURYS (AFRICA) LTD.

(Incorporated in England)

DURBAN
409/411 SMITH STREET

JOHANNESBURG
26 PLEIN STREET

CAPE TOWN
95 LOOP STREET

*a significant advance in the
treatment of ventricular arrhythmias*

. . . . PRONESTYL Hydrochloride

less toxic than quinidine

Indications and Dosage

**IN CONSCIOUS
PATIENTS**

For the treatment of ventricular tachycardia:

Orally: 1 Gm. (4 capsules) followed by 0.5-1.0 Gm. (2 to 4 capsules) every four to six hours as indicated.

Intravenously: 200-1000 mg. (2 to 10 cc.). *Caution*—administer no more than 200 mg. (2 cc.) per minute.

Hypotension may occur during intravenous use in conscious patients. As a precautionary measure, administer at a rate no greater than 200 mg. (2 cc.) per minute to a total of no more than 1 Gm. Electrocardiographic tracings should be made during injection so that injection may be discontinued when tachycardia is interrupted. Blood pressure recordings should be made frequently during injection. *If marked hypotension occurs, rate of injection should be slowed or stopped.*

For the treatment of runs of ventricular extrasystoles:

Orally: 0.5 Gm. (2 capsules) every four to six hours as indicated.

IN ANESTHESIA

During anesthesia, to correct ventricular arrhythmias:

Intravenously: 100-500 mg. (1 to 5 cc.). *Caution*—administer no more than 200 mg. (2 cc.) per minute.

Supply

Pronestyl Hydrochloride Capsules, 0.25 Gm., bottles of 100.

Pronestyl Hydrochloride Solution, 100 mg. per cc., 10 cc. vials.

PRONESTYL Hydrochloride

SQUIBB PROCAINE AMIDE HYDROCHLORIDE

"PRONESTYL" IS A TRADEMARK OF E. R. SQUIBB & SONS

SQUIBB

Further information and literature is available from

PROTEA PHARMACEUTICALS LIMITED

P.O. Box 7793, Johannesburg

Phone 33-2211

• • • • in place of plasma



Dextran-Benger★

Dextran-Benger is now used extensively in the prophylaxis and treatment of shock in place of plasma and represents a significant advance in recent research on resuscitation.

- 1 IT IS STERILE
- 2 IT MAY BE STORED INDEFINITELY UNDER ANY CLIMATIC CONDITIONS
- 3 IT MAY BE USED IRRESPECTIVE OF BLOOD GROUP
- 4 IT IS FREE FROM THE COMPLICATIONS INVOLVED IN THE USE OF PLASMA

★ Full literature is available on request from Messrs. British Chemicals and Biologicals (S.A.) (Pty) Limited, 259 Commissioner Street, Johannesburg.

HISTADYL

(Thenylpyramine, Lilly)

Symptoms of allergy are frequently encountered by physicians all over the world.

It has been stated that some degree of hypersensitivity exists in as much as 50 per cent of the population and a major allergy occurs in 10 to 15 per cent. 'Histadyl' is a superior and highly effective antihistaminic which produces relatively fewer and milder side-effects. The diversity of allergic manifestations demands the choice of a versatile antihistaminic.

'Histadyl' should be your choice.

ELI LILLY INTERNATIONAL CORPORATION
Indianapolis 6, Indiana, U.S.A.

antibiotics in that it is capable of penetrating the aqueous and vitreous humours of the eye.

To administer Chloromycetin orally *en masse* in trachoma is hardly a practical proposition. Fortunately, we know how to increase the solubility of Chloromycetin, and extensive trials are being arranged with a 0.5% solution of Chloromycetin by topical application. A 1% ophthalmic ointment, which will retain its potency for at least 12 months, is also under consideration. (Chloromycetin is only soluble in water to the extent of 2.5 mg. per c.c., which may not be sufficiently potent.)

Amoebiasis. All the new antibiotics, including Bacitracin, have been used with some measure of success in amoebiasis, although there is a tendency to relapse. Most workers seem to be agreed that the lethal action of the antibiotic is on the intestinal flora, particularly the enterococci, and that the elimination of these micro-organisms disrupts the symbiotic relationship which seem to exist between these organisms and *Entamoeba histolytica*, thus permitting healing of the intestinal ulcers.

Yaws and Tropical Ulcers. Yaws and tropical ulcers both respond to Chloromycetin and Aureomycin.¹¹ Chloromycetin would appear to be more effective in yaws and Aureomycin in tropical ulcer.

Pharmacology. Chloromycetin passes the placental barrier and, in contrast to some of the other newer antibiotics, has also been shown to be present in the spinal fluid in concentrations of 30-50% of that in the blood stream following oral dosage. A practical application of this is seen in the remarkable results that have followed its administration in *Haemophilus influenzae* meningitis.

The fate of Chloromycetin in the body has been extensively investigated. Chemical analysis of the urine collected over a 24-hour period disclosed the presence of nitro compounds—accounting for approximately 90% of a given daily dose of Chloromycetin. The bile, on the other hand, contains only small amounts.

Mode of Action of Chloromycetin. It is interesting to speculate how Chloromycetin acts in the body. Smadel considers that it is essentially bacteriostatic. Gray,¹⁵ on the other hand, is of the opinion that it is bactericidal, but that in concentrations below a critical level there is a zone of bacteriostasis which in turn gives way to ineffectual concentrations. According to this worker it is possible to sterilize the upper respiratory tract and, less effectively, the gut.

Evidence seems to suggest that Chloromycetin interferes with carbohydrate metabolism, more exactly with the normal functioning of vitamins B₁, B₂ and nicotinic acid, all of which act in dehydrogenase systems, i.e. it inhibits the co-enzymes essential to carbohydrate metabolism. A

probable explanation is that Chloromycetin, for the time being, at any rate, inhibits the organisms responsible for metabolizing vitamin B in the intestinal tract, and prolonged treatment with Chloromycetin may necessitate the administration of the vitamin B complex.

Another theory is that Chloromycetin interferes with fat rather than carbohydrate metabolism.¹⁶ In other words, it may relate to its inhibitory action on esterase.

Whether Chloromycetin is bacteriostatic or, as we are beginning to believe, bactericidal, there is one aspect of antibiotic therapy we must not forget, and that is that Nature still has her part to play in developing antibodies.

Fortunately, any side-reactions that may occur with Chloromycetin—they include slight nausea, muscle fatigue, temporary ophthalmoplegia and a dry mouth—all disappear fairly quickly with the cessation of treatment. In the great majority of cases Chloromycetin is extremely well tolerated.

Chloromycetin has made history by being the first antibiotic to be prepared in the chemical laboratory. It offers great promise as a useful therapeutic agent in the treatment of some entities in which laboratory results did not suggest clinical effectiveness, such as mumps and syphilis, and perhaps other conditions will present themselves.

REFERENCES

1. Smadel, J. E., Woodward, T. E., Ley, H. L. Jr., Philip, C. B., Traub, R., Lewthwaite, R. and Savor, S. R. (1948): *Science*, **108**, 160.
2. Payne, E. H., Sharp, E. A. and Knaudt, J. A. (1948): *Trans. Roy. Soc. Trop. Med. Hyg.*, **42**, 163.
3. Giles, H. McC. and Symington, T. (1950): *Lancet*, **1**, 16.
4. Personal communication.
5. Smadel, J. E. (1950): *Trans. Roy. Soc. Trop. Med. Hyg.*, **43**, 555.
6. Chaudhuri, R. N., Ghosal, S. and Chaudhuri, M. N. R. (1950): *Ind. Med. Gaz.*, 398.
7. Smellie, J. M. (1950): *Proc. Roy. Soc. Med.*, **43**, 766.
8. Grant, J. (1950): *Med. Officer*, **2**, 19.
9. Gray, J. D. (1950): *Lancet*, **2**, 800.
10. Romansky, M. J., Olansky, S., Taggart, S. R. and Robin, E. D. (1949): *Science*, **110**, 639.
11. Dawson, L. H. and Simon, H. E. (1949): *South Med. J.*, **42**, 696.
12. Pijoan, M., Payne, E. H. and Dineen, J. (1949): Communicated to the Annual Meeting of the American Society of Tropical Medicine, Memphis, 16 November.
13. Leopold, I. H., Nichols, A. C., Vogel, A. W. (1950): *Arch. Ophthalmol.*, **44**, 22.
14. Ampofo, O. and Findlay, G. M. (1950): *Trans. Roy. Soc. Trop. Med. Hyg.*, **44**, 315.
15. Personal communication.
16. Smith, G. N., Worrel, C. S. and Swanson, A. L. (1949): *J. Bact.*, **58**, 803.

NEW PREPARATIONS AND APPLIANCES

CELLOTHYL

A METHOD OF IMPROVING FUNCTION OF THE BOWEL

Cellothyl, specially prepared brand of methylcellulose, provides correction for constipation in the physiological manner. It is superior to the usual cathartic in that no drugs whatsoever are taken and the bad effects of mineral oil and lubricants are avoided.

Like other hydrophilic colloids, *Cellothyl* has a great

affinity for water. But the water is not taken up in sponge-like fashion. Instead, a colloidal solution is formed, varying in viscosity from a thin demulcent liquid in the stomach, thickening in the small intestines, to a soft smooth gel in the colon. In other words, *Cellothyl* follows exactly the pattern of normal digestion and the passage of chyme through the gastro-intestinal tract.

Cellothyl does its work through bulk, and provides that bulk where it is needed: in the colon. A normal soft and

moist stool is the result. Because of its hydrophilic nature, abundant quantities of liquid should be taken along with *Cellothyl*—at least one glass of water with every 3 tablets. In addition, fluids should be taken freely throughout the day.

Obstinate constipation of years' duration can be overcome in days by *Cellothyl*. Because of its nature *Cellothyl* also provides a useful control in diarrhoea, and general relief in the 'unstable colon'.

Dosage: For constipation. Three tablets with a glass of water three times daily until a normal stool is achieved. Then 3 tablets once or twice a day. For diarrhoea. Two to three tablets with a glass of water every three to four hours.

Cellothyl requires abundant fluids which should be taken freely throughout the day.

Cellothyl is available in tablets, each 0.5 gm., in bottles of 50 and 100. Chicott Laboratories (Division of, The Maltine Company, U.S.A.). Sole distributors: Scherag (Pty.) Ltd., Johannesburg.

PRIVINE POCKET NEBULISERS

Ciba Laboratories Ltd. announce that their plastic pocket nebuliser is now available containing two different strengths of Privine solution, 1:1,000 or 1:2,000.

Privine is a most efficient vasoconstrictor for application to mucous membranes and its effects are rapid and prolonged. The 1:2,000 solution is adequate in the majority of cases and is the strength recommended for children, while the 1:1,000 solution provides the intense vasoconstriction required for cases of severe congestion and in E.N.T. surgery.

One application by the nebuliser two or three times a day is sufficient to give relief in most cases of rhinitis, whether acute or chronic; whilst Privine solution, by shrinking the mucosa, provides the aeration and drainage required in the treatment of sinusitis.

The pocket nebuliser provides a unique means of applying a fine spray of Privine solution to the nasal mucosa and it is both effective and economical in use.

Supplies of Privine nebulisers will be available through the usual channels from the agents, Sana Limited, P.O. Box 3951, Johannesburg.

ASSOCIATION NEWS : VERENIGINGSNUUS

A LETTER TO THE CHAIRMAN, S.A.R. & H. SICK FUND CENTRAL BOARD, S.A.R. HEADQUARTERS, JOHANNESBURG

REQUEST BY R.M.O.'S GROUP TO BE RETIRED AT 65 INSTEAD OF 60

Mr. Chairman,

From a memo drawn up by me dated 31 July 1950, enumerating the previous requests by the R.M.O.'s group, it would appear that from 1930 we have put up no less than four requests for extension of our services to 65, but with no success whatsoever.

The question is now *sub judice*, but in support of our reply to your letter requesting to have our opinion on the subject, we wish to add the following information and remarks.

During the last few years a number of private and semi-Government bodies have extended their retiring age from 60 to 65. Amongst these are:—

1. Land Bank.
2. Atkinson-Oats (Sydney Clow) and approximately 20 subsidiary companies.
3. Asca (S.A.) Pty. Ltd. (Electrical Engineers).
4. Prudential Insurance Co. Ltd. (All agency staffs in South Africa and overseas.)
5. Garlicks Ltd. (Retiring age 70 years.)
6. Mining Industry. (Retirement is optional from 60 for underground and 65 for officials and surface workers. Members can continue while fit.)

As is known, the then Minister of Welfare, Dr. Stals in Parliament stated, during the last Session, that the subject of an older retiring age has revived interest in the recommendations of the Centlives Commission of Enquiry 1946 (Fourth Report) that compulsory retiring age for male public servants should be 65 years. The Minister stated that the percentage of European population over 65 was 4.29 in 1931 and has risen to 6.2 in 1946, i.e. by 44.3%.

There was at the same time a relative decrease in the number of young people and this meant that the producing section of the people was becoming relatively smaller while the older section was being pushed out of service by our system of retirement. The time would come, he said (and has come, we say), when provision would have to be made for the fact that the life span of the people had been lengthened and the present restrictions which resulted in healthy and strong employees of the Government and other spheres of employment retiring at the age of 60 years would have to be removed.

The Centlives Commission's recommendations contained provisions for male public servants on giving three months' notice to have the right to retire on pension at the age of 60 or at any time thereafter or after having completed 40 years of service before having reached the age of 60.

In conclusion, the Centlives Commission (which investigated the position very fully) stated that the unyielding rule to retire

public servants on reaching 60 years of age was indefensible. The compulsory retiring age of public servants in the Union was the lowest in the Commonwealth and serious thought must be given to increasing the retiring age to 65 years.

If this was the state of affairs in the Public Service with its fairly generous pension scheme, it should be doubly more essential for R.M.O.'s without pensions not to be retired before 65 or 70 years, provided they are fit.

The work performed by R.M.O.'s requires specialized knowledge not only of their general medical and specialized subjects, but also experience in the economic handling of thousands of patients, which experience is obtained only after many years of practice. The retention of this experienced manpower for as long as possible is therefore most essential. It is a matter of everyday observation that the young R.M.O. is a much more expensive prescriber than the old one of many years' experience, yet can produce no better results!

At this stage I will deal with the matter in the following manner for purpose of logical sequence and in order to avoid repetition:—

1. The legal aspect.
2. The merits of the case.
3. The expectation of life, quoting life tables.
4. The retiring age in other countries.

1. *The Legal Aspect:* There subsists between the S.A.R. & H. Sick Fund as employer and the R.M.O. as employee a contract of employment which embraces:—

- (a) The conditions of employment generally.
- (b) The rate of remuneration.
- (c) The right to expect advancement.
- (d) The right to retire at a specified age or on four months' notice.

These contractual rights are something special because not only are they entered into generally when an R.M.O. is appointed but they are entrenched and express in the form of the Railway Act and S.A.R. & H. Sick Fund Regulations. Hence we have the position that whereas the contract yields private rights, the S.A.R. & H. Sick Fund, in no uncertain terms, declared and established these rights as statutory rights as well.

It is common cause that contractual rights may only be cancelled or altered with the consent of both parties thereto and that statutory rights may only be amended by statute. In terms of the Railway Act and Sick Fund Regulation No. 99 (1950) the Governor-General may make, upon recommendation of the S.A.R. & H. Sick Fund Board, Regulations not inconsistent with this Act, as to all or any of the following

matters, *inter alia* the rights, privileges and duties of the R.M.O. and the manner in which such duties shall be performed.

In so far as the Fund is concerned, therefore, it can and has the right to amend the conditions of employment without consulting the R.M.O.'s at all. In fact, it has on various occasions in the past done so, e.g. extension of specialists' services from 60 to 65 from 1936 to 1944. If the Fund, therefore, desires to increase the retiring age to 65 generally, it can do so without consulting the R.M.O.'s at all or without getting further authority from any higher body besides the Minister of Railways. The point here is that the R.M.O.'s through their Group have repeatedly expressed the desire that the retiring age should be 65. I am told that the private opinion of the Minister is that the retiring age of R.M.O.'s should be fixed by the profession and not by the Sick Fund or Administration.

2. *The Merits of the Case:* If we examine the position purely on the merits of the case, the following would appear to be a fair summary of the position.

A. *Advantages from the Sick Fund's point of view.*

(a) It would for a further period of five years avoid the loss of valuable experience gained—especially with reference to specialists.

(b) It would ensure the keeping of valuable men who are regarded as indispensable and the making use of their well-balanced and matured judgment in carrying out the responsibilities of the Fund.

(c) The Sick Fund would retain for a further five years the services of its best officers.

B. *Advantages to the R.M.O.*

(a) Financial advantages to those who married late in life and have children to educate or have to meet some financial commitments.

(b) On the principle that an active mind keeps the body healthy, the possibility of prolonging life cannot be overlooked.

(c) Removing the anxiety of being without (or with little) employment after the age of 60 while still healthy and otherwise active. This is especially so where the R.M.O. for many years had run a big railway practice without opportunity of working up a substantial private one and more so because the appointment carries no pension.

3. *The Expectation of Life:* On this matter some very interesting information was obtained. The following expectation of life tables were obtained from certain of the largest insurance companies. This is based on the duration of life among healthy adults and is the experience of no less than 40 different companies, both here and in Europe, during the period 1914-1949.

Mean Duration

Age	1914-1929	1929-1949
20	41.51	49.7
25	38.10	45.3
30	34.63	40.8
35	31.14	36.3
40	27.64	31.8
45	24.19	27.5
50	20.82	23.3
55	17.60	19.2
60	14.57	15.5
65	11.79	12.2

This shows clearly how the expectation of life has increased over the short period under review.

According to the latest census figures, based on the Union Census taken in 1946, starting at the age of 20, out of every 93 persons 69 will reach the age of 60, while 59 will reach the age of 65.

The 59 who reach the age of 65 can expect to live a further 121 years, i.e. to 77½ years. (See *S.A. Life Tables—Vol. III—*published by the Census Department in 1951, U.G. No. 14/51.)

The estimated distribution of the population of the U.S.A. for the age groups 0-9 years and over 60 years is as follows. Estimated figures for South Africa are not available.

	0-9 Years (In Millions)	Above 60 Years (In Millions)
1950	21.6	17.2
1960	20.7	21.6
1970	19.7	26.2
1980	19.2	31.2

4. *The Retiring Age from Pensionable Posts in Other Countries:*

A. *Canada.* The compulsory retiring age is 65.
B. *Australia.* One can retire either at 60 or 65.
C. *America.* The compulsory retiring age is 70.
D. *Holland.* The compulsory retiring age is 65.
E. *Sweden (the Model State for a New World).* Here the worker can retire on pension at 67 or continue while fit, receiving both salary and pension.

In all the countries judges of the Supreme Court retire at 70 years. In South Africa this is also so. In England the appointment to the Judiciary is usually for life unless the official decides to retire earlier.

There is no doubt whatsoever that people live longer to-day, and longevity will increase with the years. It is a mistaken idea that a person is supposed to be 'burnt out' at the age of 60. In fact, such assertions are purely hypothetical.

Mr. George Lawton, writing in the *New York Times* last year states: 'Without question there are individuals who can work without cessation up to a great age. William Ewart Gladstone was Prime Minister of Great Britain until after 84 or 87 years of age, and no one of his followers would have been so bold as to suggest failing powers. Bernard Shaw is now 94 and still writing and commenting acutely on various problems of the day.' Mr. Churchill is well over 70.

In our country the cases of President Paul Kruger, General Smuts, General Hertzog, Dr. Malan, Mr. Havenga and many others can be quoted, as examples.

The special Government Commission appointed to investigate the Centlives Commission's recommendations has just published its Report, strongly recommending that all male public servants be retained in service until reaching the age of 63 years. This is only an interim measure, as the Commission recommends that, within a few years, the age limit should be extended to 65 years with the option of keeping a man on until 68 years.

Similarly in the medical profession, many of the outstanding brains of the century were still at the top of the tree between 60 and 65 intellectually, if not physically.

If an occasional R.M.O. is 'worked out' at 60 then I can assure you that it will invariably be found to be due to the stress and strain and sweated labour of his Railway practice. In such cases, Mr. Chairman, it is your Christian duty to do for him all you can rather than to abandon him to his own resources without a pension.

There is no doubt that the modern ability to give good service for a longer period is very real. In the long forgotten past men and women at the age of 40 were old and worn out, but despite the fact that our modern system is infinitely more complex than then, and the strain on us undoubtedly greater, the fact remains that we can now work comfortably until 65 years where previously the limit was 55 years.

It is felt that the average reasonable age of retirement was previously underestimated and that the time has now come to retire the employee at a more advanced age. This increase of the expectation of useful life is in no small way to be attributed to the modern advancement of the medical profession in its treatment of many hitherto highly fatal diseases, and will eventually lead to the uneconomic position when there will be more people over 60 than wage earners. The retiring age of 60 years was decided upon many years ago, when living conditions in this country were still fairly primitive and hazardous as compared with present-day circumstances, and there is no doubt that the retiring age of 60 is out-moded.

In conclusion, Mr. Chairman, it cannot be stressed too strongly that every endeavour should be made to bring into being a pension fund for all R.M.O.'s to lessen the financial anxiety of their old age—no matter at what age they retire. The financial strain of retiring at 60 is usually infinitely greater than at 65.

Mr. Chairman, the whole country has admitted that the Centlivres Commission had proved its case for retiring at 65 right up the hilt. If that is the case for the pensionable employee, then surely there is a much stronger case for the non-pensionable one.

We therefore pray, Mr. Chairman, that the oft-reiterated 20-year-old request of the R.M.O.'s to be retired at 65, be granted immediately. It is unnecessary and a waste of time to wait for the Government's decision in respect of its pensionable employees. The Land Bank and a host of other

concerns and Governments have seen the wisdom and necessity of this and I am sure the S.A.R. & H. Sick Fund will do so too.

C. H. H. Coetzee,

Vice-Chairman:

S.A.R. & H. Sick Fund R.M.O.'s Group.

10 Silver Oak Avenue,
Waterkloof Ridge,
Pretoria.

RADIOLOGICAL SOCIETY OF SOUTH AFRICA

A meeting of Council was held at Johannesburg on 22 May 1951.

Present: Prof. Oosthuizen (Chairman), Drs. Jackson, Kaye, Nel, Weinreb and McLachlan.

Dr. Sacks had intimated that he would be unable to attend. Amendments to the proposed *Medical Aid Tariff* submitted by the Cape Branch were considered. Two of these were adopted and the tariff was finally approved.

The draft constitution for the Transvaal Branch of the Society was considered.

It was decided that Associate Members could not have the right to vote, as this would conflict with the Society's constitution.

Method of Election of Members: Council suggested that the phrase 'by popular vote . . . ' should read 'by popular vote, or by secret ballot, if any one member should request a secret ballot.'

The other clauses of the draft constitution were approved. *Resolution of the Transvaal Branch:* 'That the Radiological Society of South Africa be requested to alter its Constitution

in order to allow it to pay a capitation fee of 10s. p.a. to the Transvaal Branch in lieu of the annual subscription of the Branch which should be abolished.'

After discussion it was decided that the resolution could not be agreed to but that at the next meeting after notice of motion, Council would consider reducing the annual subscription to the Society to 10s. 6d.

The Secretary was instructed to ask the Cape Branch for information regarding the proposed Cape Hospitals Ordinance as it affected radiologists.

The Secretary moved that an attempt be made to get the Workmen's Compensation, Police and Pensions authorities to agree to a standard scale of fees. It was decided to postpone discussion until all relevant data had been collected.

F. W. McLachlan,

Honorary Secretary.

206 van Riebeeck Medical Building,
Schoeman Street,
Pretoria.

MEMORANDUM ON THE STATUS OF THE GENERAL PRACTITIONER

VIEWS OF THE NORTHERN TRANSVAAL BRANCH OF THE MEDICAL ASSOCIATION

The General Practitioner has, throughout the ages, been regarded as the family doctor. Not only did he deal with sickness and give advice on matters medical, but he was the friend and confidant of the family. By virtue of his intimate knowledge of the family as a whole, he was in the best position to advise on problems which confronted the family, be they psychological, economic or social. The family above all had the highest regard for his medical opinion and trusted him implicitly. If a second opinion was required he advised the form which this should take and if the treatment prescribed could be carried out by the family doctor the Consultant referred the patient back to his family doctor.

It is the consensus of opinion that in recent years the General Practitioner is fast losing his prestige as the family doctor and in our present age of enlightenment and the rapid advances in medicine, particularly in the last few decades, we find that the public is becoming more specialist minded and seeking the services of the latter often without seeking the advice of the family doctor at all.

Let us briefly consider (1) whether this change that has come about is in the interest of the patient, and (2) what the factors are that have brought it about.

The answer to (1) is in the negative. The human being must, in the first instance, be considered as a whole and not as a series of different sets of organs each with its own specific functions. *Who is in a better position to do this than the conscientious family doctor who has kept abreast of modern advances in his own particular field?* The General Practitioner is the vital link between the patient and the Specialist. Faith in the family doctor must, apart from other considerations, inevitably lead to the avoidance of unnecessary expenditure for consultations where this is not regarded as essential and, where Specialist opinion is required, that the patient can be advised to go to the 'right speciality'. (The term 'right speciality' is used to indicate a physician in the case of a medical condition as opposed to a surgeon, etc.) Because of the high degree of specialization to-day, it is not uncommon for a patient with a self-made diagnosis to visit a Specialist only to be told that the condition from which she

is suffering is outside the scope of his speciality and a visit to a second Specialist becomes necessary. However, before the patient can have that implicit faith in his family doctor or General Practitioner the latter must show that he is thorough and painstaking in his examination of the patient, must show a real interest in the patient and must above all be conscious of the limitations of his own skill.

It might be pointed out in passing that the remuneration received by the General Practitioner for a thorough and painstaking examination does not compare with the fee received by the Specialist who by virtue of the fee he receives can afford to devote a great deal more time to his examination.

To answer (2) it is necessary to determine whether in fact the average General Practitioner of to-day measures up to the standard demanded of him by the public. He will be the first to admit of shortcomings in this respect. Pressure of work often militates against a very thorough examination. Financially he is, therefore, not hit but his prestige in the eyes of the public and the Specialists does suffer. The public, on the other hand, is also more enlightened to-day about matters medical through the lay Press, and consequently demands the best. Psychologically it is not surprising that the Specialist is, on the surface, being called upon to take over the functions of the General Practitioner. The new graduate believes that general practice holds no future with the result that there is a greater tendency on the part of some Specialists not to refer patients back to the family doctor who were in the first instance sent to the Specialist by the General Practitioner. This has also to a measure added to the factors which have led to the decline of the status of the General Practitioner.

Competition among medical men of all categories has become extremely keen. Most doctors prefer to practise in the larger towns and their services, apart from those attached to hospitals, are confined mainly to the European population. The newly-established General Practitioner or Specialist finds it more and more difficult to make a comfortable living. The question arises whether there is not an over-production of doctors at present, in so far as the requirements of the European population are concerned, which must inevitably lead to

a lowering of the ethical code and thereby a lowering of the standard of medicine practised. Based on the 1946 Census we find that in 1948 there was one doctor for 2,381 persons (all races) in the Union. The European population per doctor was approximately 496.

Having regard to all the facts, there is no doubt that the prestige of the General Practitioner has fallen both in the eyes of the public and the Specialist. There is even less doubt that in the interests of the public the General Practitioner should resume the status he once held and which is his prerogative—that of the family doctor. The question now is how can this be done? It is suggested that the problem could be tackled on the following lines.

1. The General Practitioner must be given the opportunity of improving his knowledge of clinical medicine. This can be done by creating facilities for the General Practitioner to become attached to hospital staffs and by the creation of post-

graduate courses and lectures specially designed for General Practitioners.

2. Specialists should assume the role of consultants and should permit the General Practitioner to carry out such treatment as he prescribes within the limits and scope of the practitioner.

3. The question of the medical requirements of the Union should be thoroughly investigated and the number of graduates should be limited to these requirements. Cognizance must be taken of the non-European population.

4. Consideration should be given to the question whether the average medical student is permitted to qualify at an age which does not enable him to fully realize his responsibilities to the public and at the same time does not enable him to fully comprehend the finer points of a vast subject which he has attempted to assimilate in the comparatively short period of six years.

THE BENEVOLENT FUND

The following contributions to the Benevolent Fund during May 1951 are gratefully acknowledged:

Votive Cards: In Memory of:

Mr. L. Vosloo by Dr. E. G. van Hoogstraten.
Mr. A. J. Godden by Mr. G. Stafford Mayer.

Total Amount Received from Votive Cards: 19 0

Services Rendered to:

Mr. B. W. Durham by Drs. Meyer, Jacobson,
Van der Merwe and Van der Burgh.
Dr. J. D. Joubert by Drs. W. Waddell, Jean
Fleming, I. R. Ross, B. Muriess, J. K. de
Kock, T. Edmunds, F. du T. van Zyl, E. van
Hoogstraten, F. Petersen, H. Wolf, A. de
Villiers and Prof. Forman.
Mr. P. Sichel by Dr. C. Goldberg.
Mr. M. G. Wilcocks by Drs. A. C. Watt, R. L.
Girdwood, P. H. Boshoff and Dr. N. A.
Stutterheim.

Total Amount Received from Services
Rendered: 34 3 6

Donations:

Cape Western Branch Collection Box	1 18 6
Dr. H. Kramer	11 11 0
Border Branch Members	8 8 6
Die Chirurgiese Staf van Universiteit, Pretoria	100 0 0
Mr. R. D. H. Baigrie	2 2 0
Cape Western Branch Collection Box	1 8 11
Dr. P. A. Euvrard	10 6
Dr. H. Saacks	5 0
Dr. J. J. Wessels	10 6
Dr. J. Kleinman	10 6
Dr. J. G. M. Richter	1 1 0
Dr. M. Ginsberg	10 6
Dr. C. Ross	10 6
Dr. P. R. Malherbe	6 0
Dr. G. W. Doran	15 0
Dr. A. S. Parker	10 6
Dr. H. L. Wallace	1 1 0
Dr. C. P. Bringle	10 6
Dr. T. H. R. Bohlmann	1 1 0
Dr. D. L. Krogh	10 6

£169 3 11

PASSING EVENTS

Prof. P. D. de Langen has been on a return visit to South Africa after an interval of many years. On this occasion he has come at the invitation of the *Fakulteit vir Natuurwetenskap en Kuns*.



Prof. P. D. de Langen.

Professor de Langen took a leading part in the establishment of the Medical School in Batavia, where he was Professor of Internal Medicine until the end of 1904. In collaboration with Lichtenstein he wrote a book on *Tropical Diseases*.

He was subsequently appointed to succeed his former chief, Prof. Hijmans van den Berg, as Professor of Internal Medicine at the University of Utrecht in the Netherlands, where he added to his reputation as a teacher and clinician as well as by his work on diseases of the blood. In collaboration with Snapper and van den Berg, Professor de Langen has been responsible for a *Textbook of Internal Medicine*.

He will shortly return to Utrecht to resume his duties in the Department of Internal Medicine.

During his stay in Cape Town, Professor de Langen addressed a combined meeting sponsored by the Cape Town Post-Graduate Medical Association, the Cape Western Branch of the Medical Association of South Africa and the University

of Cape Town. He spoke on *Hepatitis and the Post-Hepatitis Syndrome* to one of the largest audiences ever assembled in the Physiology Lecture Theatre at the Medical School, Mowbray.

We regret to record the death of Dr. Max Greenberg, of Johannesburg.

It is with regret that we learn that Dr. J. C. Ardenorff of Middelburg, Transvaal, passed away on 8 June. Dr. Ardenorff had been in practice in Middelburg since April 1943 and was a staunch member of the Eastern Transvaal Division of the Northern Transvaal Branch.

Sir Walter Johnson passed away at his house at Eerste Rivier, C.P., early in July. For many years he had been in the Colonial Medical Service in Nigeria where he had done considerable research into yellow fever. Before his retirement he was attached to the Basutoland Medical Service and latterly was Medical Adviser to the High Commissioner for the Protectorates.

Dr. I. Schrire of 1 Hof Street, Cape Town, has left by air on a short visit to the United Kingdom. He expects to be back in the middle of September.

THE SPA IN MEDICAL PRACTICE

The British Medical Association has recently published a book entitled *The Spa in Medical Practice* which is a report of a committee of the Association. Copies of this may be obtained from the Publishing Manager of the Association at British Medical Association House, Tavistock Square, London, W.C.1. The price is 3s. 6d. plus postage.

IN MEMORIAM

DR. WALWYN THOMAS, O.B.E., M.D.

The death of Dr. Walwyn Thomas has removed from the profession a man of outstanding ability and character.

He was born in Wales 80 years ago. He was educated at St. Pauls (London), Cambridge and St. George's Hospital through scholarships. After holding various house appointments at St. George's he was marked for preferment and had he remained in London he would undoubtedly have become a leading London physician on the staff of St. George's. At this time, however, volunteers were urgently required for plague duties in India. Thomas spent several years there before coming to South Africa to hold a commission in the R.A.M.C. during the Boer War. When at the end of the war plague broke out in South Africa, Thomas with his Indian experience again offered his services. He decided to settle at the Cape and was appointed Port Health Officer which led to his establishing a large shipping practice.

He served during the 1914-18 War with the South African General Hospital at Richmond and then in France. He was appointed Divisional Medical Officer in charge of the Medical

Section and was awarded the O.B.E. (Military) for his sound work as an outstanding physician. There was no more popular or respected member of the staff than Thomas.

No obituary of Dr. Thomas would be complete without mention of his love of sport. He was a familiar figure at Newlands rugby and cricket grounds for 40-odd years. In his Cambridge days he was a fine forward and missed his rowing blue through a stroke of ill luck.

His wide reading and views on current affairs, his humorous and entertaining conversation made an evening spent in his company a pleasure to the privileged few who knew him intimately.

He was extremely generous. Medicine has too few men of his stamp.

The Benevolent Fund of the Association was included in his bequests.

W. L. G.

Cape Town,
25 June 1951.

REVIEWS OF BOOKS

MODERN TRENDS IN PAEDIATRICS

Modern Trends in Paediatrics. Edited by Sir Leonard Parsons, M.D., F.R.S., F.R.C.P. (Pp. 546 + xxiv with 114 illustrations. £3 3s. 3d.) Durban: Butterworth & Co. (Publishers) Limited, 1 Lincoln's Court, Masonic Grove, 1951.

Contents: 1. Stillbirth and Congenital Malformations following Rubella and Other Virus Diseases during Pregnancy. 2. The Physiology of the Foetal and Neonatal Circulation and Respiration. 3. Neonatal Mortality and Morbidity. 4. Haemolytic Disease of the Newborn. 5. Congenital Heart Disease. 6. Cardiovascular Surgery. 7. Diseases of the Blood. 8. Preventive Paediatric Services: Recent Trends in the United Kingdom. 9. The Place of Child Health Institutes in Medical Education and Research. 10. Nutrition. 11. The Normal Development of the Infant. 12. Child Psychiatry. 13. Progress and Problems in Viral Diseases of Special Importance in Childhood (Exclusive of Poliomyelitis). 14. Poliomyelitis. 15. Tuberculosis. 16. Radiology. 17. Chemotherapy. 18. The Endocrine Glands. 19. The Lipoidoses. 20. The Chondrodysplasias and the Cranial Dysostoses. 21. Siderorrhoea.

In this book the author stresses the increased attention being paid to the physiology of childhood and of the unborn child. He refers to this as 'the newer paediatrics', the study of the child in health as well as in disease.

The author draws attention to the association between congenital defects and virus diseases during pregnancy other than rubella, measles, mumps, varicella, herpes zoster, poliomyelitis, influenza and infective mononucleosis may produce the same variety of congenital defects previously ascribed only to rubella.

The newer methods of study of children with congenital heart disease and the great advances in the treatment of such cases are described.

A chapter devoted to the normal development of the infant with many illustrations as well as references to Gesell, is indeed useful and the latter is a fairly recent addition to a paediatric volume.

Another chapter dealing with psychiatric and psychological approaches to the handicapped child gives the reader a clear picture of the present-day possibilities of prevention and treatment in this field of practice. It is not so much the subject matter of these two studies as their inclusion in a paediatric volume devoted to organic disease conditions that is to be commended.

INTRAVENOUS PROCAINE

Clinical Uses of Intravenous Procaine. By David J. Graubard, M.D., and Milton C. Peterson, M.D. (Pp. 84 + xii with 7 Tables, 8s. 6d.) Oxford: Blackwell Scientific Publications, 1951.

Contents: 1. Introduction. 2. Chemistry and Pharmacology. 3. Intravenous Local Anaesthesia. 4. Pruritus. 5. Serum Sickness and other States of Sensitivity. 6. Analgesia in Burns and Post-Operative Pain. 7. Acute Arrhythmias during Anaesthesia. 8. Pain in Traumatic and Inflammatory Conditions. 9. Acute Anterior Poliomyelitis. 10. Other Indications.

Procaine therapy is by no means a new type of therapy, for as early as 1908 a Spanish physician Goyanes used intra-arterial injections of Procaine as a method of producing regional anaesthesia of the extremities. In 1909 Bier used solutions of Procaine for the same purpose, but he chose to administer the drug intravenously.

Drs. Graubard and Peterson have shown that Procaine (familiarly known to us as Novocain) is of great use as a therapeutic agent intravenously. It cures and shortens the course of the most intractable and uncomfortable manifestations of serum sickness and the delayed reactions which all too frequently occur after Penicillin therapy. These two workers give proof of the beneficial effects of the use of Procaine in many other more chronic medical conditions, e.g. bone, nerve and vascular diseases, and indicate its usefulness in anaesthesia and for relief of post-operative pain.

Whereas in the past no workers have given a guide to those using Procaine intravenously with regard to effective safe dosage, Drs. Graubard and Peterson have devised what they term the 'Procaine Unit', i.e. the amount of Procaine calculated at 4 mg. per kilogram body weight, to be given in 20 minutes in a 0.1% isotonic solution.

This little volume is easily and quickly read, and should appeal especially to the busy general practitioner, as well as to the dermatologist, the surgeon and the anaesthetist.

CONGENITAL HEART DISEASE

Congenital Heart Disease. By J. W. Brown, M.D. (Lond.). F.R.C.P. (Pp. 344 + xiii, with 128 illustrations. Second ed., 30s.) London: Staples Press Limited, 1950.

Contents: 1. Introduction: Special Features of Congenital Heart Disease. 2. Embryology and Morphology. 3. Frequency, Etiology and Classification. 4. The Cyanotic Group. Pericardial Defects. Idiopathic Hypertrophy. 5. Aortic and Subaortic Stenosis. 6. Congenital Stenosis and Atresia of the Aortic Arch. 7. Abnormalities of the Aortic Arch and Coronary Arteries. 8. Abnormalities of the Semilunar Cusps. 9. Cyanotic Tetralogy. 10. Defects of the Atrial Septum. 11. Maladie de Roger. Isolated Defects of the Ventricular Septum. Congenital Heart Block. 12. Cyanosis. 13. Pulmonary Stenosis and Atresia. 14. Valvular Stenosis and Atresia. 15. Triloculate and Biloculate Hearts. 16. Defects of the Aortic Septum. 17. Transposition of the Great Vessels and Complete Transposition. 18. Dextrocardia. 19. Infective Endocarditis in Congenital Heart Disease. 20. Special Methods of Investigation. 21. Differential Diagnosis. 22. General Prognosis and Treatment. Bibliography. Index.

This book was first published in 1939 and Dr. Brown has now brought it up to date with this second edition. Until Dr. Helen Taussig's publication in 1947, this book had no rival. Although there is a chapter on special methods of investigation, there is no mention of any personal experience with angiocardiology or cardiac catheterization. The electrocardiograms show only the standard leads, but it is indeed remarkable that a work on

this subject can command such respect without paying homage to modern techniques which have contributed so much to diagnosis in recent years.

The diagnosis of congenital heart disease has, until recently, always been fraught with the utmost difficulty, and for this reason, therefore, reports of cases must of necessity contain many errors in diagnosis unless suitable postmortem studies have been made. Previous reports on cases will therefore lose a great deal of their value because of the recent methods of diagnosis which give greater accuracy in diagnosis.

The development of the heart and the great vessels, always a difficult subject, has been particularly well handled. Dr. Brown makes the interesting suggestion that in those cases of cyanotic congenital heart disease, where the patient has not spontaneously acquired the habit of squatting, this habit should be inculcated and should also be used as a means of treatment in urgent cyanotic cases.

The book is a valuable one and an important contribution to the collection of literature on the subject of congenital heart disease.

PATHOLOGY OF THE EYE

A Pathology of the Eye. By Eugene Wolff, M.B., B.S. (Lond.), F.R.C.S. (Eng.). (Pp. 364 + vii. With 318 illustrations, including 5 plates in colour. 3rd ed. 55s.) London: H. K. Lewis & Co. Ltd. 1951.

Contents: 1. Diseases of the Cornea. 2. Diseases of the Conjunctiva. 3. Diseases of the Lids. 4. Diseases of the Uveal Tract. 5. Diseases of the Lens. 6. The Vitreous. 7. The Retina. 8. Glaucoma and Hypotony. 9. The Sclera. 10. Injuries to the Eye. 11. Congenital Anomalies. 12. Intracranial New-Growth. 13. The Optic Nerve. 14. The Orbit. 15. Diseases of the Lacrimal Organs. 16. Errors of Refraction. 17. Eye Changes in Diabetes. 18. Some Points in General Pathology. Bibliography. Index.

It appears to be the rule that a further edition of any medical book must increase in volume. This is certainly so in the case of the textbook under review, for, whereas the second edition published in 1944 comprised 268 pages with 212 illustrations, the present edition boasts 344 pages and 318 illustrations. This seems a considerable increase, even allowing for the accepted trend, but since most of this additional space is occupied by new pictures, all of which are of the fine quality one has to come to associate with this author's work, they cannot but enhance the value of the book.

By far the greater part of the text remains unaltered; the main additions are in the origins of the melanomata, the nature of glioma retinae, the pathology of cysts of Zeis's glands, Schnabel's cavernous atrophy, the pathology of Coats's disease and retro-lental fibroplasia. Of these, the last proved by far the most interesting to the reviewer and though, as in previous editions, the bibliography is excellent, one could have wished for even wider discussion of this fascinating subject before having to resort to references.

There is no change in the lay-out and reproduction, both of which remain superlative.

MEDICAL TREATMENT

Medical Treatment: Principles and Their Application. Edited by Geoffrey Evans, M.D., F.R.C.P. (Pp. 1398 + index + xxvi with 48 illustrations. £5 18s. 3d.) Durban: Butterworth & Co. (Publishers) Limited, 1 Lincoln's Court, Masonic Grove. 1951.

Contents: 1. Addiction. 2. Allergy. 3. Antibiotics and Sulphonamides. 4. Antigen Therapy. 5. Blood Diseases. 6. Blood Transfusion. 7. Bone Diseases. 8. Cancer. 9. Cardiovascular Disease. 10. Central Nervous System. 11. Chest Diseases. 12. Children's Diseases. 13. Dehydration. 14. Dental Septis. 15. Diabetes Mellitus. 16. Ear, Nose and Throat Diseases. 17. Endocrine Disorders. 18. Eye Diseases. 19. Feet and Toes. 20. Food Poisoning. 21. Gastroenterology. 22. Geriatrics. 23. Industrial Diseases. 24. Infectious Diseases. 25. Kidney and Urinary Tract Diseases. 26. Liver Diseases. 27. Pancreas Diseases. 28. Mental Deficiency. 29. Nuclear Physics. 30. Nutrition. 31. Parasites. 32. Peritonitis Diseases. 33. Physiotherapy. 34. Psychiatry. 35. Psychoneurosis. 36. Rehabilitation. 37. Rheumatism and Allied Disorders. 38. Skin Diseases. 39. Thrombosis in Veins. 40. Toxicology. 41. Tropical Diseases. 42. Venereal Diseases. 43. Vitamin Deficiencies. 44. X-Ray and Radium Therapy.

Editors of books on treatment are faced with the difficulty of finding a happy mean between the severely summarized handbook for rapid reference and the bulky treatise for the library bookshelf. This book, edited by Dr. Geoffrey Evans of St. Bartholomew's Hospital, London, appears to have found the mean and although the book contains some 1,300 pages, the

information contained in it could hardly have been compressed further, although the use of finer paper would have resulted in a slimmer volume.

Over 50 contributors have been recruited, the majority being leading members of English Universities and Medical Schools, and the subject matter in each section has therefore been compiled by an authority in his particular speciality. The arrangement of the book is unusual, inasmuch as the subjects are taken in alphabetical order and the same order is used 'within the heading of each subject'. This method of classification, combined with an adequate index, proves logical and satisfying to the reader, and lends itself to easy reference.

The book is designed not only to deal with principles, but also their application, and the reader will find within its covers a mine of authoritative information on the general principles and on detailed plans of treatment. The latter is essential for the practitioner who wishes to obtain help in the management of his patients; and it is too often an aspect which is obscured or even evaded in books on therapy.

The book makes easy and interesting reading, and it is astonishingly up-to-date, both as regards recent advances in chemotherapy and physical methods of treatment. A readable account of nuclear physics and its practical application is included.

The book should prove popular and useful to practitioners and specialists alike.

LIGHT DIETS

Recipes for Light Diets. By E. M. Shipley, B.Sc. (H. & S.S.) and H. M. Dundas. (Pp. 38 + ix. 3s. 6d.) London: J. & A. Churchill, Limited. 1951.

Contents: 1. Soups. 2. Fish. 3. Eggs. 4. Cheese. 5. Meat. 6. Vegetables. 7. Sauces. 8. Sweets. 9. Cakes. 10. Miscellaneous Recipes.

This booklet provides opportunities to select from a variety of recipes for light diets and so helps to make the life of the patient more interesting.

It will do much to help the wives of afflicted husbands to cope with the vexing problem of how to provide the spice of life.

CLINICAL LABORATORY METHODS

Clinical Laboratory Methods. By W. E. Bray, B.A., M.D. (Pp. 614. With 119 illustrations and 18 colour plates. 4th ed. 61s. 9d.) St. Louis: The C. V. Mosby Company. 1951.

Contents: 1. General Rules; Laboratory Examinations of Value in Various Cases. 2. Urinalysis. 3. Hematology. 4. Blood Chemistry. 5. Gastric Analysis. 6. Faeces and Intestinal Parasites. 7. Puncture Fluid Examination; Fluid Examination. 8. Sputum. 9. Bacteriology. 10. Mycology. 11. Water and Milk Examinations. 12. Serology. 13. Basal Metabolism Tests. 14. Allergy Tests. 15. Poisons and Foreign Substances. 16. Surgical Pathology. 17. Indicators, Stains and Staining Solutions. Reagents. Removal of Laboratory Stains. Atomic Weights. Table of Equivalents. Table of Normals.

Bray's *Clinical Laboratory Methods* first appeared in 1936, and the latest edition (1951) has been brought up to date by the introduction of much recent work without making the volume too elaborate. In plain, simple language the procedures for the various laboratory investigations are described in such a manner that any laboratory technician can carry out the tests. Reference is greatly facilitated by a good index. The accounts of fairly recent work are of value to the reader. The illustrations and charts are good, but some could easily be omitted without detracting from the value of the work, e.g. the picture of the red blood cell series or the hormone test for pregnancy, or the picture of *E. histolytica*.

The section on mycology, although short, is a very necessary one, and so is the one on the Rh problem; both are concise and the information adequate. The same can be said about the section on poisons and foreign substances.

It would perhaps be better if the theoretical discussions on the various clinical pathological conditions were left out, as the (at times necessarily) short introductions are of little value to the non-medical technologist and are not quite sufficient for the medically trained worker; but it is difficult to find a happy medium between a plain recipe book and a purely theoretical and clinical work.

Taken on the whole, the book is a useful addition to the library of any laboratory worker, as it contains all relevant matter.

X-RAY DIAGNOSIS

A Text-Book of X-Ray Diagnosis By British Authors. Volume I. Edited by S. Cochrane Shanks, M.D., F.R.C.P., F.F.R. and Peter Kerley, M.D., F.R.C.P., F.F.R., D.M.R.E. (Pp. 434 + xiv. With 439 illustrations. Second Edition. 45s.) London: H. K. Lewis & Co. Ltd. 1951.

Contents: Part I: Central Nervous System. 1. General Technique and Pathology. 2. The Radiological Features of the Cranium, Normal and Pathological. 3. Ventricleography and Encephalography. 4. Cerebral Angiography. 5. Intracranial Lesions. 6. Anomalies and Diseases of the Skull. 7. The Spinal Cord. Part II: The Teeth and Jaws. 8. The Normal Teeth and Jaws. 9. Un erupted and Supernumerary Teeth. 10. Inflammatory Diseases of the Periodontal Membrane and Alveolus. 11. Injuries to the Teeth and Jaws. 12. Cysts and Tumours of the Teeth and Jaws. 13. Inflammatory and Other Diseases of the Jaws. 14. Diseases of the Temporo-Mandibular Joint and Aurium. Part III: The Eye. 15. The Eye. Part IV: The Accessory Nasal Sinuses. 16. General Considerations, Anatomy and Physiology. 17. Aetiology of Inflammatory Disease of the Sinuses. 18. Radiographic Technique. 19. The Use of Iodised Oil in the Diagnosis of Nasal Sinus Disease. 20. Radiological Interpretation of Sinus Disease. Part V: The Temporal Bone. 21. General Considerations and Development. 22. Anatomy, Physiology and Pathology. 23. Radiographic Technique. 24. Radiological Interpretation.

This volume maintains the high standard now associated with this authoritative textbook of radiology. Much of it, e.g. the sections on the eye, the nasal sinuses and the temporal bone, has largely been rewritten, and there are considerable additions to almost all the other sections. The re-arrangement and the additions adequately illustrate and describe the extensive advances that have been made in the field of diagnostic radiology in the past 11 years; but in spite of this much of the original material remains unchanged, proof in this case of its basic sound quality. It would be invidious to direct attention to any particular section, but of note are the expansion of the sections on cerebral angiography, myelography and the temporal bone. One small note of criticism is the retention of the word 'Theorast' in much of the descriptive text, though its use is quite rightly condemned at the beginning of the section on cerebral angiography.

This volume is essential to radiologists and to students of radiology, and the large and comprehensive section on the central nervous system makes it a useful reference book to the neurologist and neuro-surgeon.

The British authors are to be congratulated on producing a concise, informative, readable and well-illustrated textbook that is pre-eminent in its field.

OBSTETRICS

Textbook of Obstetrics. By John F. Cunningham, M.D., M.A.O., F.R.C.P.I., F.R.C.O.G. (Pp. 499. With 297 illustrations. 40s.) London: William Heinemann Medical Books Ltd. 1951.

Contents: 1. The Female Genital Organs. 2. Physiology of Pregnancy: Puberty; Ovulation; Menstruation. 3. The Diagnosis and Management of Normal Pregnancy: The Diagnosis of Pregnancy; Prenatal Care. 4. Physiology of Labour. 5. The Mechanism of Labour. 6. The Conduct of Normal Labour. 7. The Puerperium. 8. Management of the Puerperium. 9. Pathology of Pregnancy: The Toxaemias of Pregnancy; Diseases complicating Pregnancy: Haemorrhages of Pregnancy; Uterine Displacements in Pregnancy; Multiple Pregnancy; Pelvic Tumours complicating Pregnancy; Abnormalities of the Chorion, Placenta, Amnion, Cord, Foetus. 10. The Pathology of Labour and its Treatment: Abnormal Uterine Action; Abnormalities of the Passages; Abnormalities of the Passengers; Abnormalities of the third Stage of Labour. 11. Trauma of Labour. 12. The Pathology of the Puerperium: Disorders of the Breasts; Puerperal Infection. 13. Operative Obstetrics: The Induction of Labour; Version; Turning; The Obstetric Forceps; Caesarean Section: Operations to facilitate the Delivery of a Dead Foetus. 14. The Infant. 15. The Premature Infant. 16. Pathological Conditions of the New-Born. Index.

Intended primarily for students, this *Textbook of Obstetrics* covers a large field in a concise yet eminently readable manner.

The author's presentation of puerperal infection is likely to leave the reader somewhat confused and certainly a little vague about the principles underlying this important complication.

The excellence of this book is marred by a number of statements to which exception might be taken. Thus the author states that a presystolic cardiac murmur is in most cases functional, that Crede's expression of the placenta should be performed on a relaxed uterus and that in employing Kielland

forceps the head should be rotated during traction. A statement which might have serious repercussions if acted upon by the inexperienced is made on p. 103, that 'if the lowest point of the head has reached the level of the ischial spines, the head is fully engaged'. For the same reason exception must be taken to his using the terms 'fixed' and 'engaged' synonymously.

Professor Cunningham's account of the ethical standards of the Roman Catholic Church is a helpful addition to a very useful and carefully written textbook.

THERAPY 1951

Current Therapy 1951. Edited by Howard F. Conn, M.D. and Consulting Editors. (Pp. 699 + xxxi. 85s.) Philadelphia & London: W. B. Saunders Company, 1951.

Contents: Section I: The Infectious Diseases. Section II: Diseases of the Respiratory System. Section III: Diseases of the Cardiovascular System. Section IV: Diseases of the Blood and Spleen. Section V: Diseases of the Digestive System. Section VI: Disorders of Metabolism and Nutrition. Section VII: Diseases of the Endocrine System. Section VIII: Diseases of the Urogenital Tract. Section IX: The Venereal Diseases. Section X: The Allergic Diseases. Section XI: Diseases of the Skin. Section XII: Diseases of the Nervous System. Section XIII: Diseases of the Locomotor System. Section XIV: Obstetric and Gynecologic Conditions. Section XV: Diseases due to Physical and Chemical Agents. Section XVI: Appendices and Index.

A new edition of *Current Therapy* has now appeared for the third successive year. This has been made possible by the impetus given to therapeutics by the ever growing number of antibiotics and increasing experience in their application. The original plan of presenting the subject in the form of 'methods' has been retained and 275 contributors describe their method of therapy in every field of medicine.

Unlike most textbooks on therapeutics, the diagnostic preamble has been eliminated. It is assumed that the correct diagnosis has been established and only the therapeutic regimen is presented. This makes for brevity and conciseness and on this account will be particularly welcomed by the busy general practitioner.

Compared with the 1950 edition, a few contributors have been added, a few changed, but the real differences are in relation to increased experience from the newer antibiotics. It is a pity that the therapy of amoebiasis, the first method presented, reflects a theoretical, rather than a practical acquaintance with the condition. Most 'methods', however, are sound and well established. The material is excellently indexed.

OUTLINE OF FRACTURES

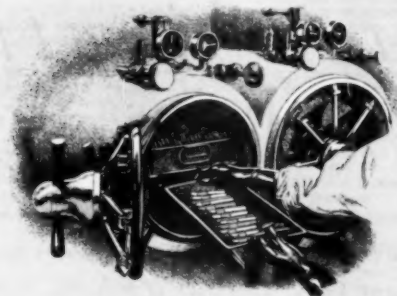
A Complete Outline of Fractures including Fractures of the Skull. By J. Grant Bonnin, M.B., B.S., F.R.C.S. (Pp. 671 + xiv. With 711 figures. 3rd ed. 42s.) London: William Heinemann Medical Books Ltd. 1951.

Contents: 1. General. 2. Repair of Fractures. 3. Signs and Symptoms of Fractures. 4. Principles of Treatment. 5. Immediate Complications of Fractures. 6. Late Complications of Fractures. 7. Treatment of Wounds. 8. Treatment of Compound Fractures. 9. Treatment of Non-Union, Delayed Union, and Mal-Union. 10. Immediate Operative Treatment of Fractures. 11. War Surgery of Fractures. 12. Apparatus. 13. Plaster of Paris Technique. 14. Anaesthesia. 15. Fractures of the Skull, Vault and base. 16. Fractures of the Face and Jaw. 17. Fractures and Fracture Dislocations of the spine. 18. Fractures of the Ribs and Sternum. 19. Fractures of the Clavicle. 20. Fractures of the Scapula. 21. Fractures of the Humerus. 22. Fractures of the Radius. 23. Fractures of the ulna and both bones of the Forearm. 24. Fractures and Dislocations of the carpus. 25. Fractures of the metacarpals and phalanges. 26. Fractures of the pelvis, sacrum and coccyx. 27. Fractures of the femur. 28. Fractures of the patella. 29. Fractures of the tibia and fibula individually. 30. Fractures of both bones of the leg. 31. Fractures of the lower end of the tibia and fibula (ankle). 32. Fractures of the tarsus, metatarsus and phalanges. 33. Dislocations of the jaw and upper extremity. 34. Dislocations of the lower extremity. Appendices. Index.

This book, now in its third edition, was primarily written as a textbook for students. It contains much that will interest even the practising orthopaedic surgeon.

The author amply demonstrates that 'the treatment of fractures demands more care and common sense, than the possession of elaborate machines'. Throughout the book emphasis is laid on the 'Three R's' of the traumatic surgeon, viz.

1. Reduction—which should be immediate and accurate.
2. Retention—continuous and absolute.
3. Re-education—active, early and persistent.



Claustro-Thermal* Catgut

(boilable)

possesses all the qualities essential to proper function and is adaptable to all conditions and techniques where catgut sutures are indicated. It provides excellent tensile strength, compatibility with tissues and uniformity of dimension *plus* absolute sterility. It is unaffected by the reboiling or autoclaving of unused tubes. Obtainable in standard lengths or with swaged-on Atraumatic* needles specially developed for various types of surgery.



Davis & Geck Sutures

"THIS ONE THING WE DO"

*Registered Trade-mark



M. STABLER, ESQ. M.P.S., CHAS. F. THACKRAY (S.A.) (PTY.) LTD.,

Sole Importer:

P.O. Box 816, CAPE TOWN and P.O. Box 2726, JOHANNESBURG.

A combination of qualities

The claims of 'Dettol' do not rest on any single quality desirable in an antiseptic, but rather upon the combination of several essential properties. It can be used at fully effective strengths with safety; that is, without risk of poisoning, discomfort or damage to tissue. It retains a high bactericidal potency in the presence of blood, it is stable, and agreeable in use.

DETTOL

THE MODERN ANTISEPTIC

RICKITT & CO (S.A.) (PVT) LTD., P.O. BOX 1097, CAPE TOWN

35

3805-1E

ANTABUS

the new medical treatment for
ALCOHOLISM

IMPORTANT CONSIDERATIONS IN "ANTABUS" TREATMENT.

1. "ANTABUS" is not a cure for Alcoholism, it is an aversion treatment, and its use must be accompanied by careful observation and measures aimed at correction of underlying personality disorders. For this reason, it is essential to obtain the consent of the patient, and where possible, the co-operation of relatives. Follow-up visits and encouragement are of great importance.
2. As in the case of all new therapies, great care must be exercised in patients suffering from Cardiovascular diseases; patients having less than 85% of normal Liver function; chronic or acute Nephritis; Epilepsy; Diabetes mellitus; Asthma and Pregnancy.
3. "ANTABUS" should not be administered to patients who have been given Paraldehyde as it may be metabolised through an Acetaldehyde stage. Similarly Paraldehyde should not be administered to "ANTABUS"-treated patients.
4. The patients desire to stop treatment should be discouraged until such time as it is confidently felt that social readjustment has been effected. The aid of social workers such as "Alcoholics Anonymous" is, in many cases, of great importance.
5. "ANTABUS" is a relatively safe drug provided a proper physical, psychiatric and social evaluation of the patient is made before treatment is commenced.
6. In cases of violent reaction Nikethamide and a mixture of 95% Oxygen and 5% Carbon Dioxide have been administered with good effects.

TRADE ENQUIRIES:

NATAL: Stuart Jones and
David Anderson, Ltd., 20 Queen
Street, Durban.

TRANSVAAL and O.F.S.: B.
Owen Jones, Ltd., 83 Main
Street, Johannesburg.

CAPE, Eastern Province: B.
Owen Jones Ltd., 63 Cambridge
Street, East London.

CAPE, Western Province: Sciex
(B. Owen Jones), Ltd., Raphael's
Buildings, 86 Darling Street,
Cape Town.

The chapter on fractures and injuries of the ankle is excellent, and is a condensation of the author's recent publication *Injuries to the Ankle*.

This edition contains several new illustrations and the subject matter has been increased by the discussion on the use of the Künstcher nail in fracture treatment, and the operative treatment of hand and finger injuries.

There are several facets of the subject matter which may be considered too advanced or complicated for the average student, but all in all this is a very readable book, and the student who has digested it, will have an excellent knowledge of fracture surgery.

The bibliography is comprehensive and very valuable to the student or the orthopaedic surgeon who requires to gain further knowledge on any practical problem of trauma.

This book can be strongly recommended to all who have an interest in the treatment of fractures.

TECHNICAL DICTIONARIES

Bibliography of Interlingual Scientific and Technical Dictionaries. By J. E. Holmstrom, Ph.D. (Pp. 220.) Paris: Unesco, 1951.

Contents: 1. Explanatory Note in English. 2. Note Explicatif en français. 3. Positions of the language designations across the page. 4. English names of languages in alphabetical order. 5. Bibliography of Dictionaries. 6. Language Index. 7. Subject index in English. 8. Index des sujets en français. 9. Author index. 10. Pagination of principal subject classes.

In this report Dr. J. E. Holmstrom discusses the rationale of technical translating, the need for dictionaries relating to specialized subjects, and the means whereby existing deficiencies may be remedied by enlisting the co-operation of international technical organizations.

These proposals are timely because there is now general agreement that technical terms should be clearly defined and their equivalents in different languages standardized by those who can speak with authority in each branch of subject matter. Scientific exchange and the passing on of knowledge is handicapped unless words can be used as tools of precision.

'Terminology, even in science, resembles a jungle rather than a garden at present,' says Dr. Holmstrom. 'Instead of one term, and one only, being planted in a language to mark each distinct outcrop from the field of knowledge, words are left free to proliferate unintended and to entangle the seeker in a weed growth of quasi-synonyms.'

To change the metaphor, even when a word does have some focus of meaning which is generally accepted, too often this central meaning shades off into a penumbra of vagueness which overlaps the penumbras of the meanings of other words and makes it doubtful which of several alternatives to choose for describing a concept which falls in between them.

This situation is dangerous enough within one language, and when other languages are involved it becomes formidably so, for it is rare that a word in one language chances to mean exactly the same, and to carry the same implications as the words of another equated to it in dictionaries.

Moreover most of the existing special dictionaries—a separate bibliography accompanying the Report (priced at 65 cents, 4s., 200 French francs) classifies no less than 1,044 of them under 224 subjects heads and in 45 languages—has been

compiled for commercial publishers by individual authors the soundness of whose judgment the user has no means of knowing. Many are out of print and they vary quite randomly in arrangement, convenience of use, quality and up-to-dateness and present availability as well as in the languages and scope of subject matter to which they relate.

As between English, German and French there is a relatively satisfactory coverage, but for most other languages, including Oriental languages which are of growing importance, the situation is unsatisfactory—particularly so as regards dictionaries for specific branches of science. It is these which are most urgently needed, and also these which are the most difficult to compile and to finance commercially.

UNESCO, therefore, hopes to play a part in evolving improved and more economical techniques both for compiling and printing this kind of dictionary with a view to recommending them to international scientific unions and other suitable bodies interested.

HOSPITAL ACCOUNTING

Hospital Accounting, Principles and Practice. By T. Leroy Martin, Ph.D., C.P.A. (Pp. 230 + xvi. \$4.75.) Chicago: Physician's Record Company, 1951.

Contents: 1. The Organisation of the Hospital Corporation. 2. Classification of Services and Expenses. 3. Recording Income from Sales of Services. 4. The Proration of Expenditures. 5. Surplus and Reserve Accounts. 6. Endowments, Funds and Related Accounts. 7. Bonds and Other Long-Term Liabilities. 8. Investments and Investment Income—General. 9. Investment and Investment Income of Hospitals. 10. Hospital Fund Balance Sheet and Statement of Income and Expense. 11. Capital vs. Revenue Expenditure. 12. Dividends and Dividend Income. 13. Payroll Records—Purchasing and Control of Inventories. 14. The Computation of Costs of Services. 15. Costs of Nursing Education, Nursing Service, and Charity.

This book is simply and interestingly written and covers a wide field in the principles of hospital accounting and costing. The need for uniform systems of accounting and costing in regard to groups of hospitals is beyond question and the principles proposed by the author form a valuable basis for such systems.

CLINICAL PATHOLOGY

Aids to Clinical Pathology Including Post-Mortem Technique. By D. Haler, M.B., B.S., D.C.P. (Pp. 398 + viii. With 22 figures. 2nd ed. 8s. 6d.) London: Baillière, Tindall and Cox, 1951.

Contents: Section 1: Post-Mortem Technique. Section 2: Haematology. Section 3: Cytology. Section 4: Histology. Section 5: Bacteriology. Section 6: Serology. Section 7: Parasitology. Section 8: Biochemistry. Appendix. Index.

This fairly comprehensive manual will undoubtedly be of great practical assistance to clinical pathologists. The inclusion of a section on autopsy technique is a valuable one which should be of considerable help to the beginner.

It is likely, however, that not all will agree with the opinion that just over 10% of abnormal sperm forms indicates probable infertility, and there is still considerable controversy about what constitutes a so-called normal number of sperms per ml. The figure of 120 million per ml. is probably unduly dogmatic and demanding (pp. 360-361).

An unfortunate misprint occurs in Chapter XLI in which the word 'Sulphanilamides' is consistently misspelt 'Sulphonilamides', this error being perpetuated in the index.

CORRESPONDENCE

THE DIAGNOSIS OF HYPERTENSIVE DISEASE

To the Editor: I always find something interesting in our *Journal*. From a purely subjective point of view, however, I found particularly many interesting points in the number of 19 May 1951. Some of the points have aroused my interest to such a pitch that I feel a definite urge to give you my views on them. My letter may remind you forcibly of Lewis Carroll's verse

The time has come the walrus said,
To speak of many things,
Of shoes and ships and sealing wax,
Of cabbages and kings.

If that is the case, please remember that I am merely a country physician with a wide, often vague, sphere of interests and that, like all G.P.'s, I cannot be considered to be an individual with a scientific outlook.

There is first of all the Editorial on *The Diagnosis of Hypertensive Disease*. I heartily agree with your view that it is often, in any particular patient, very difficult to evaluate high blood pressure readings correctly. As you rightly point out, some patients have a very labile blood pressure, which is apt to shoot up to unprecedented heights at the slightest mental or emotional stimulus.

I myself have a patient and friend who had been loaded once by an insurance company in his early youth for what

was diagnosed as hypertension. When I first met him, the blood pressure readings which I took seemed abnormally high. Now that we know each other well, both professionally and as friends, his blood pressure, when I take it, is well within normal limits. When the old doctor in his home town takes it, it is also normal. Lately he wished to take out another insurance policy. Because he had been loaded before, he had to have his blood pressure taken by a second doctor. This entails leaving his work, taking a trip to the neighbouring town six miles away and often he has to wait an hour or longer for this doctor to turn up. While he waits he worries about the work at his office, worries whether the owner of the car he borrowed will need it. Every time his blood pressure is taken in these circumstances, it shoots sky-high. Added to this is the worry of wondering whether this time the strange doctor will find a reading which will satisfy the insurance company. This, and many other similar cases, the G.P. deals with as a daily routine, prove the difficulty of making a correct evaluation of blood pressure readings. Each patient with high blood pressure readings is a separate individual problem that has to be solved by his own general physician. What is more, only the family physician, if he is willing to take the necessary pain and trouble, can solve this problem. It will take me too far to go into further detail, but anyone can easily think this matter out for himself.

Thus far, I agree in essence with your Editorial, but when we come to your last paragraph, there is a world of difference between your and my view. You say: 'nor can any good result from "keeping an eye" on the blood pressure at frequent intervals. Until the medical practitioner is in the position to offer an effective therapy for hypertension, he can best serve his patient by avoiding any measures which may contribute to anxiety.'

You therefore advise and urge that the blood pressure metre should be used sparingly, if at all. 'Any incautious word or gesture may actually serve to increase the patient's anxiety,' you say, and tell us not to frighten the patient by taking his blood pressure. I disagree with you entirely. I think that, like examination of the urine, blood pressure should be taken every time a patient is examined. The patient, particularly if his disposition to the doctor is friendly, loses his fear and anxiety about the procedure, thus doing away with all your objections against actually taking the blood pressure. The evaluation of each particular series of readings still remains equally difficult, however.

Here is one of the important fields in medicine where the family physician may prove his worth. He knows, or should know, the patient's background, his mental and material worries, his family history, his renal condition, the condition of his heart and arteries, etc. All these have to be considered in evaluating the blood pressure readings of each particular patient.

In my practice I know which patients normally have high readings, which normally have an average reading, and which always give a low reading compared with textbook teaching. Each patient's records are kept and for each patient there are certain average readings which for that patient are normal. While for each patient the readings remain within the particular range which is normal for that individual, he does not suffer from the troublesome subjective symptoms of hypertension. It is essential to 'keep an eye' on such a patient's blood pressure, because any abnormal rise or drop in the blood pressure normal for that individual patient is, in most cases, a danger signal. If this danger signal is not observed, or when observed is ignored, tragedy is sure to follow.

We adopt these measures as a routine in ante-natal care, i.e. the urine and the blood pressure are regularly and constantly observed. In ante-natal work, also, we do not attach over-much importance to the actual numerical value of the blood pressure readings, but we do attach the greatest importance to changes in the blood pressure readings. Any sudden rise in diastolic or systolic pressure, any change in the ratio between diastolic and systolic pressure, etc., may be precursors of dangerous physical illness. In ante-natal work we know this to be the case; we also know that by taking heed of these danger signals we can very often avert illness, even death itself. The hypertensive patient in principle does not differ from the pregnant woman as far as these conditions are

concerned. Would you advise us to drop regular blood pressure readings in ante-natal practice? If the procedure does so much to increase the anxiety of the patient, have we a right to expose the pregnant mother to this anxiety?

That is just where your view is wrong, totally and completely wrong. Regular examination of the blood pressure in the hands of a family physician who takes pride in his art, never causes the patient any anxiety. Far from it: the family physician allays and often removes the patient's state of anxiety which may be, and very often is, the chief cause of his undoubted hypertension. Reading blood pressures regularly and evaluating them correctly for hypertensive patients and for pregnant women is an essential part of preventive medicine.

I have a large number of undoubted hypertensives in my practice. None of them is unduly worried about his condition. Indeed, since their blood pressure is taken as a part of the routine examination these patients suffer much less from the subjective discomforts usually associated with hypertension. They, one and all, know that I cannot guarantee to cure hypertension and/or calcified arteries. I tell them that at the first examination but they also do know that there are measures by which we can temporarily at least reduce the hypertension whenever it reaches a dangerous level. They come to me when they become anxious about themselves or when they are troubled by their symptoms. As hypertension is a sign of so many varying conditions from anxiety and nervous strain to a late sequel of renal disease, there are many ways in which we can help. In the majority of instances we do actually help the hypertensive patient. By regularly 'keeping an eye' on the patient, we doctors take away his burden of anxiety and in this way alone do inestimable good. In many cases we are also able to avert tragedies which without our help would have been inevitable.

There is another side to the Editorial as it stands. The article was very widely quoted in the lay press. I will repeat your last sentence in English and Afrikaans: 'Until the medical practitioner is in the position to offer an effective therapy for hypertension, he can best serve his patient by avoiding any measures which may contribute to anxiety.' 'Totdat die geneesheer in staat is om doeltreffende behandeling teen hipertensie te bied, sal hy in die beste belang van sy pasiënt handel deur maatwels te vermy wat tot besorgdheid kan bydra.'

Now there are only two deductions the ordinary layman can make from this Editorial, particularly the last sentence:

1. There are no useful methods of treatment for hypertension.

2. All physicians and even medical specialists have treated and are treating patients for hypertension. If there is no effective treatment (behandeling) for hypertension, then we have all been guilty of obtaining money by false pretences!

There are only these two conclusions and, believe me, they have been made by many of our patients, much to the detriment of the health of many of them. The patients who have drawn these conclusions naturally consider this another proof absolute of the double-dealing and unfair ways of money-making so often ascribed to our profession.

The above statement, considered on its own and in its context, is not only extremely harmful but completely untrue. It is harmful because the hypertensive patient who reads this statement abandons all hope. If there is no treatment (behandeling) for his illness why consult a doctor at all? The statement has been widely circulated in the daily press all over South Africa and has been read by thousands of people who do undoubtedly suffer from hypertension. The official organ of the medical profession in South Africa has definitely stated 'there is no therapy for hypertension'. We may quibble about the exact meaning of the words 'effective therapy' but the Afrikaans word used is 'behandeling' which can only mean treatment. [*Doeltreffende behandeling*—Redakteur.]

The whole Editorial has one theme: 'In hypertension avoid any measures which may contribute to the anxiety of the patient.' This Editorial has been read in the daily press by thousands of hypertensives. Does the Journal consider that the bald statement 'there is no treatment for hypertension' given by the highest authority in the country, is going to allay anxiety of hypertensive or pseudo-hypertensive patients?

No, the opposite *must* be the only result. The anxiety of these patients has been increased a hundredfold, and it will be very difficult, even impossible, for many of these patients ever to throw off the anxiety again.

The statement that 'there is no treatment for hypertension' is grossly untrue. There are many treatments available, they range from psychological treatment in the form of allaying anxiety, through re-educating the behaviour-pattern of the patient, through treatment with sedatives or drugs with direct action on the spastic peripheral circulatory system, to heroic surgical interference. All these methods, even the last-mentioned, have shown excellent results, when applied to the correct type of patient. Treatment with 'medicines' when and where hypertension has been painstakingly investigated (which includes regular, numerous blood pressure readings) and where the meaning of the abnormal readings has been correctly evaluated, gives enormous relief in practically all cases, even in most psychogenic cases.

The multiplicity of treatments that are available and actually applied is no reflection on medical science. *Hypertension is not a disease in itself, it is a sign of disease.* The cases where hypertension can be said to be a disease *per se* are extremely rare. We do not nowadays call 'muscular pains' a disease, although in the Middle Ages it was considered a disease in its own right. 'Muscular pain' when persistent is merely a sign of disease in its own right. 'Muscular pain' when persistent is merely a sign of disease. Asthma, in the same way, is in the great majority of cases merely a sign of 'dis-ease' physical or psychological. In all these cases we can do much by alleviating the symptoms that trouble the patient, often we can strike at those conditions—physical or psychological—giving rise to the distressing symptoms, and cure them. The statement 'there is no treatment for hypertension' is untrue, inadmissible and extremely harmful and dangerous.

All we could say and should admit, is that there is no *single* treatment known to medicine, which is a specific cure for the majority of cases of hypertension. There will never be one single specific cure, because, as pointed out before, hypertension is no disease, it is simply one of the signs common to many and varied conditions of physical and mental dis-ease.

Medicine has, however, many methods of treatment by which hypertension is greatly relieved and often cured. Relief from undue anxiety is one of the most important of these methods of treatment. A doctor who unnecessarily increases his patient's fear and anxiety, by depending solely on one or two blood pressure readings, is not worthy of the rightly honoured name 'physician'. We do wrong in blaming such a doctor's individual incompetence on the science of medicine, as the Editorial seems to do.

Even if hypertension were actually a disease-entity like, say, tuberculosis, it would be wrong not to investigate it by all the means at our disposal. This type of investigation always includes 'keeping your eye on it'. At present we have unfortunately no single specific cure for tuberculosis of the lungs, although many cases are undoubtedly cured by us or by nature with our help. Would we advise that the lungs of such a patient should not be regularly examined for fear of increasing his anxiety? It is only by means of these regular check-ups, under treatment, that we can look forward to the eventual discovery of a method of cure. It is also by such means that we are able to allay the anxiety of the patient, and relieve him of most, if not all his pain and suffering.

The conclusions reached by your Editorial, and the obvious conclusion that must equally obviously be drawn from it, and which have been drawn from it, are unscientific, untrue and harmful to the well-being of the patient. They reflect very unfavourably not only on medical science, but also on the character and integrity of medical practitioners. It is essential that all these wrong statements and conclusions should be withdrawn unconditionally, and that matters should be presented in their true and correct form to that part of the public that has unintentionally been misled by the Editorial.

There are many other matters, that aroused my interest in your number of 19 May 1951. There are (1) Dr. A. H. Vosloo's *Survey of Drug Treatment*; (2) Dr. W. Emdin's able article on *Oral Potassium in Mild infantile Diarrhoeas*, which is a timely reminder that there are other methods of treatment than the antibiotics for these conditions; (3) W. L. Speight's

letter on the history of medicine raises interesting facts which I would interpret differently. I have, however, transgressed too much on your space as it is, and must end my effusion.

Before I close, however, I wish to congratulate Dr. C. Frank on the extremely flattering and high opinion his patients have of him. I wish I could say the same of my patients. May I, however, point out to him that he is guilty of a particularly obvious piece of loose thinking? In effect he says: 'There is no loss of status for the G.P. My colleague and I headed the poll for the local town council, and we are both general practitioners.' He does not realize that they did not head the poll because they are G.P.'s. They headed the poll because of the esteem in which they are held as persons or individuals. The result of the poll cannot be regarded in any way as a measure of the esteem the public holds for the G.P.'s as a profession.

I can best explain what I mean in the following quotation from *The Testament of Joad* by C. E. M. Joad. He labours under the same classical misapprehensions about doctors and their work which are so common to-day. He says: 'For just consider the drawbacks against which a doctor must contend. There is, first of all, the absurdity of the system under which he is called upon to work. This system, under which persons who are ill call in doctors to cure them, and then proceed to pay the doctors on the basis of the elaborateness rather than the success of their cure, is an outrage upon common sense and a challenge to common dishonesty. It makes illness an asset in the patient and puts a premium upon knavery in the doctor. For (1) if all persons were continuously well, then, under the present system, doctors would starve. (2) If all persons were allowed to become so dangerously ill that any of them might at any moment die, and many of them did in fact die, the incomes of the doctors would suffer from the diminution in the number of patients. It is, therefore, to the interest of doctors to ensure that nobody should be quite well, and that nobody should be ill enough to be in danger of dying. It is, in other words, to the interest of doctors that everybody should be slightly unwell, or that they should think that they are, even if they are not. A system which makes illhealth and valetudinarianism conduce to the advantage of those whose professional business it is to cure the former and to eliminate the latter, is obviously foolish.'

As if all this were not enough, there are two additional disabilities under which a doctor must labour. The first disability is himself; a doctor is a man who spends his life dealing with people who are below par. Many of them are in a state of abject terror; all of them in a condition of grovelling dependency. How difficult for the doctor not to assume the airs of a monarch and the mantle of a prophet! How difficult for him to keep his head and not to outgrow his spiritual boots! His patients beseech him to be God and ask for a sign. How difficult to refuse the temptation, and to refrain from giving it! It is, in fact, harder to be a modest doctor who neither poses nor pontificates, than to be a modest priest, scientist, parent, teacher, lawyer, or politician. My doctors, all credit to them, achieved this difficult feat.

The doctor's second disability is the patient.

Like all patients, I grovelled. When I was in pain, I wanted desperately to be relieved, when ill, so passionately to be well, that the doctor became the centre round which the whole horizon of my interests revolved. He was the object of my hopes, the meeting-place of my desires; the repository of my interests. For it was he and nobody else who could relieve my pain and make me well. And so the doctor's visit became for me, as for every invalid, the peak and crest of the day; to it all events led up, from it they declined. Admittedly, I liked my doctors. But even if I had not done so, I would have made every effort to charm them, for to charm is to propitiate, and a propitiated deity is more likely to work miracles. At the worst, he may be induced to vouchsafe a little information. And so I discussed their families; evinced a passionate interest in the way they spent their holidays; respected their opinions, and sought to share their tastes so successfully that by a strange alchemy I presently came to identify myself with those upon whom my well-being depended. I really wanted to meet their families, was really excited by one's proposals for spending August under canvas, and waxed enthusiastic in good earnest over the other's musical preferences and prejudices. And all the time I was hating

myself for doing these things; hating myself not for hypocrisy for, as I have just explained, there was no hypocrisy, but for my humiliating dependence, my abusing emotional absorption. It is natural to resent one's dependence; natural, when it is over, that one should wish to revenge oneself upon the person on whom one has depended. Even while the absorption persists, it is not whole-hearted; there is a part of one which resents it and wants to take it out of the person or thing responsible for it. And so it is a very great tribute indeed that I am paying to my doctors, when I say that, now that I am comparatively well—for by this time it will have become apparent to the reader that I have more or less recovered—I still respect and like them and enjoy their company. Admittedly, I no longer retain the full intensity of my former interest in their pursuits; admittedly, I no longer regard their tastes as constituting the sole standard of aesthetic value. My doctors, in short, are no longer gods but men. But that a god should dwindle into a man and still retain respect, says a good deal for the man.

Let me also remind Dr. Frank of the following sayings from ancient Jewish wisdom, as true to-day as hundreds and even thousands of years ago when they were first written. I quote from *The Jews in Medicine* by Harry Friedenwald, but the same information is given in other books like *Everyman's Talmud* by Dr. A. Cohen.

"In a city where there are not ten things no learned scholar must live (Talmud, Sanhedrin 17) and among these are a physician and a surgeon. Maimonides (Yad hehesakah) includes this amongst the ordinances of Ancient Jewry."

There is, however, this other equally ancient Jewish commandment on the same page of Friedenwald: *"Abba Arika, head of the Academy of Sura . . . said to Rabbi Asi 'Do not live in a city whose head is a physician.'"*

Friedenwald, Cohen and others rightly point out that the latter saying means that a doctor's work is full time. If he takes a leading part in local government or politics his work as a physician must suffer or *vice versa*, or he will do both equally badly. There is a great deal of truth in this. It is a sign of the times that many physicians of our time find it essential to 'put in' for positions in local government, the church or even politics to increase their medical practice through the influence they can exert by that means.

A report from *Elsevier's Weekblad* of Saturday, 14 April 1951 is relevant to this discussion. If anything shows the loss of status of the general physician in Holland, this article by a layman in the lay press does so. We are rapidly progressing along the same road. Our Medical Aid Societies are increasing rapidly and the number of medical practitioners in South Africa will soon be out of proportion to the population.

In conclusion I do not wish what I have written to be considered in the light of a personal attack. I say with Robert Burton, the wise and learned author of *The Anatomy of Melancholy*:

*"If I shall speak too freely, grant to me
Both pardon and indulgence (Horace)."*

"Take heed you mistake me not. If I do a little forget myself, I hope you will pardon it. And to say truth why should any man be offended, or take exception to it."

*"It lawful was of old, and still will be,
To speak of vice but let the name go free."*

I hate their vices, not their persons. If any be displeased, or take ought unto himself, let him not expostulate or cavil with him that said it."

In the above sense I have written, and in this sense I wish these remarks to be taken.

H. H. Schulz.

Ashton.
31 May 1951.

To the Editor: Your Editorial on *The Diagnosis of Hypertensive Disease* in the *Journal* of 18 May 1951, is a welcome and salutary rebuke to those who make unnecessary invalids out of their cases of essential hypertension. I feel, however, that you have over-simplified the matter and this is not without

its dangers, specially in view of the publicity the article received in the lay Press.

You do not differentiate between essential and symptomatic hypertension. This same tendency to assume all cases of elevated blood pressure to be essential hypertension is widespread in general practice. After all, the hypertension may be a manifestation of polycythemia, coarctation of the aorta, pheochromocytoma, or of a unilateral kidney lesion such as pyelonephritis, polycystic kidney, etc., not to mention causes less likely to be overlooked such as simple obesity, Cushing's syndrome, etc. It is particularly important to exclude symptomatic hypertension in patients under 45 years of age.

An example of this is a case which I had recently. She was a female aged 40, who for some years had been known to have a slight hypertension of the order 180/110 mm. Hg. It was labile and on occasions fell to 150/90 mm. Hg. She also complained of frequent headaches. She saw a number of doctors including several physicians. She was reassured and told that her blood pressure and headaches were of no consequence, both being manifestations of a nervous temperament.

When I advised this woman to have an intravenous pyelogram done, she was most reluctant to agree. She put it to me that if it were a necessary investigation in a person with so common a condition as a raised blood pressure, it would surely have been advised by the previous doctors who had handled her. I nevertheless insisted upon it and she was found to have a huge renal calculus with a hydronephrotic non-functioning left kidney. The slightly elevated blood pressure was the only clue to the need for an intravenous pyelogram.

Moreover, I cannot altogether agree that no purpose is served by 'keeping an eye on the blood pressure'; but it must of course be done nonchalantly, as a routine formality, so that no anxiety is aroused in the patient. The blood pressure, fundi and urine should be observed at say three-monthly intervals at first and then at wider intervals. Thus the occasional case may show evidence of fairly rapid rate of increase of blood pressure, with perhaps the development of progressive deterioration in the fundi and albumin and casts in the urine. If the deterioration continues at a fairly rapid rate, the question of a Smithwick operation may arise.

One can go too far in adopting an attitude of 'masterly inactivity' and reassurance, and in doing so miss the occasional chance of dealing with the cause of the hypertension.

B. G. Shapiro.

Dumbarton House,
Cape Town.
14 June 1951.

INTERFERENCE WITH DEAD BODIES

To the Editor: I enjoyed the article by Mr. N. C. Masters and Dr. H. A. Shapiro in your *Medico-Legal Section*. I have held many post-mortems in my day. I can recall that for many I really had no written sanction or request from my magistrate.

There seem to me to be a few peculiar expressions in the good article. The authors speak about holding a post-mortem on a dead body. Surely we do not hold post-mortems on live bodies. Those may be legal terms but they do not sound right to my way of thinking.

W. H. Haupt.

Hlobane,
Natal.
6 June 1951.

[Our correspondent presumably refers to such footnotes as the one dealing with Section 87 of the *Criminal Procedure and Evidence Act*, and the passage on p. 377.

The authors, in these instances, do not refer to 'holding a post-mortem on a dead body' but to the holding of 'a post-mortem examination of the dead body'. A post-mortem examination (i.e. an autopsy) is only one of the kinds of examination that may be performed on a dead body. There are obviously other kinds of examinations than autopsy examinations.—Editor.]

TENAMID

3-PHENYL-3-CARBOXY- (3, 5-DIODO-4-HYDROXY PHENYL) ETHANE

TENIAFUGE

TENAMID is a recently discovered non-toxic anthelmintic. It is orally administered and effective against *Tenia solium*, *Tenia saginata*, *Necator americanus*, *Hymenolepis*, *Dipylidium caninum*, *Botriocephalus latus*, *Trichocephalus* and *Ascaris*, in a high percentage of cases reported. One course of treatment (12 tablets) is usually sufficient to expel the parasites completely. No special diet or purgatives are necessary. Full particulars sent on request.

TENAMID tablets of 0.5 gram in tubes of 12 and bottles of 100.



MANUFACTURED IN THE UNION OF SOUTH AFRICA BY
SCHERAG (PTY.) LIMITED, JOHANNESBURG
FOR AND UNDER THE FORMULA AND TECHNICAL SUPERVISION OF



Schering CORPORATION • BLOOMFIELD, N.J.

Showell's



Suture Needles

Sole Distributors for the Union of South Africa

Chas. J. Haekray

301-303 Boston House, Strand St. (P.O. Box 816) CAPE TOWN

23 Orion House, 235 Bree St. (P.O. Box 2726) JOHANNESBURG



for selective
penicillin
therapy
in lung tissues

THE NEW ANTIBIOTIC
LEOCILLIN

a new chemical derivative of penicillin, developed in the laboratories of Leo Pharmaceutical Products, Copenhagen, having an exceptional affinity for the lungs, through which it appears to be selectively excreted so that relatively high penicillin concentrations are produced in the lungs and bronchial tree.

PHARMAKERS (PTY.) LTD.
215-216 Gibraltar House, Regent Road, Sea Point
CAPE TOWN

Registered Agents for:

LEO PHARMACEUTICAL PRODUCTS, COPENHAGEN



"QUEEN CHARLOTTE" INFANT TENT

Oxygenaire

(South Africa) (Pty.) Ltd.

THE "QUEEN CHARLOTTE" INFANT OXYGEN TENT

THE "QUEEN CHARLOTTE" TENT IS DESIGNED TO FIT STANDARD SWING COTS OR CRIBS, AND IS NOTABLE FOR ITS SIMPLICITY AND EASE OF OPERATION. THIS TENT HAS THE FOLLOWING SPECIAL FEATURES:

- ★ EASY ACCESS TO THE BABY WITH MINIMUM LOSS OF OXYGEN IS ENSURED BY MEANS OF A HINGED LID.
- ★ HIGH OXYGEN CONCENTRATION CAN QUICKLY BE BUILT UP ON ACCOUNT OF THE SMALL CAPACITY, WHICH NEVER EXCEEDS 3 CU. FT.
- ★ TO MAINTAIN A HIGH CONCENTRATION A FLOW OF ONLY 2-2½ LITRES PER MINUTE IS REQUIRED.
- ★ IF IT IS DESIRED TO HEAT THE TENT A HOT-WATER BOTTLE CAN BE PLACED ON A RACK AT THE TOP OF THE TENT OVER WHICH THE FLOW OF OXYGEN IS DIRECTED.

OXYGEN THERAPY EQUIPMENT CONSTANTLY AVAILABLE

REG. OFFICE
41 MAIN HOUSE, MAIN STREET, JOHANNESBURG P.O. BOX 770. TEL. 33-1137



AS a background of tradition so often forms the keystone to social acceptance, so Viceroy Cigarettes feature predominantly at society's most important occasions.

Wills's
VICEROY



PLAIN.

CORK, FILTER

TYGON PLASTIC TUBING Formula S22-1

Mirror-smooth surface for easy flow.
Sterilizable at 20 lbs. for 20 minutes.
Unaffected by most acids, mineral or
vegetable oils, alcohols, ether and water.
Still flexible at temperatures up to 225°F.
and down to below 0°F.

THE IDEAL INTRAVENOUS TUBING

size $\frac{3}{16}$ " i.d. \times $\frac{1}{8}$ " o.d.

or for

STETHOSCOPES

size $\frac{3}{8}$ " i.d. \times $\frac{1}{2}$ " o.d.



Union Medical Supplies
P.O. Box 3907 81 Long Street Tel. 2-2055
CAPE TOWN

POST GRADUATE STUDY

For South African Practitioners
**Are you preparing for any Medical,
Surgical or Dental Examination?**

Send Coupon below for valuable publication

"GUIDE TO MEDICAL EXAMINATIONS" PRINCIPAL CONTENTS

The Examinations of the Qualifying Bodies.
The M.R.C.P. London and Edinburgh
Diploma in Anaesthetics.
The Diploma in Tropical Medicine.
Diploma in Ophthalmology.
Diploma in Psychological Medicine.
Diploma in Child Health.
Diploma in Industrial Health.
Diploma in Laryngology.
The F.D.S. and all Dental
Examinations.

You can prepare for any of
these qualifications by
postal study in S. Africa
and come up to Great
Britain for exami-
nation. We spe-
cialize in Post-
graduate
tuition.

THE SECRETARY
MEDICAL
CORRESPONDENCE
COLLEGE

19 Welbeck Street,
London, W.1.

*Sir,—Please send me a copy of your
"Guide to Medical Examinations"
by return.*

Name _____

Address _____

Examinations in which interested _____

South African Offices: P.O. BOX 2239, DURBAN, NATAL.

WHAT DOES TOMORROW HOLD FOR YOU?

Medical
of South



Association
Africa

Whatever you wish to insure
do it through your own

MEDICAL INSURANCE AGENCY

All forms of Insurance Business undertaken
with companies of repute.

Tell us your insurance needs and we will
make the necessary arrangements.

THE MEDICAL INSURANCE AGENCY (M.A.S.A.)

P.O. Box 643 · Cape Town · Telephone 2-6177

I am interested in insuring my.....

Kindly send me details or arrange for me to be visited.

NAME (Block Letters).....

ADDRESS.....

Fill in this coupon and post to the Medical Association
of South Africa—Medical Insurance Agency.

ANÆSTHETIC ETHER

Manufactured by
THE NATAL CANE BY-PRODUCTS LTD.
OF MEREBANK

● Guaranteed to conform to the requirements of the 1948 British Pharmacopœia and the Specification of the South African Bureau of Standards. Equal to the finest imported Ether.

● In cases, each containing 12 x 1 lb. Amber Coloured Bottles, similar to those used in Europe.

For further information please write to the selling Agents

C. G. SMITH & CO. LTD.

301 Smith Street, P.O. Box 43, Durban

Bert Mendelsohn (Pty.) Ltd.,
P.O. Box 365, Johannesburg.

C. G. Smith & Co., Ltd.,
P.O. Box 1314, Cape Town.

Courlanders' Agencies,
P.O. Box 352, East London.

A CUP OF
COCOA IS
A CUP
OF FOOD

Children will drink milk
if it is made into a cup of
Bournville Cocoa.



BOURNVILLE COCOA

The Medical Association of South Africa Die Mediese Vereniging van Suid-Afrika

AGENCY DEPARTMENT : AGENTSAP AFDELING

JOHANNESBURG

Medical House, 5 Esselen Street. Telephones 44-9134-5, 44-0817
Mediese Huis, Esselenstraat 5. Telephone 44-9134-5, 44-0817

PRAKTYKE TE KOOP : PRACTICES FOR SALE

(Pr/S28) Pretoria practice. Present income £2,500 p.a. This is an excellent opportunity for young practitioner. Premium £1,000.

(Pr/S29) O.V.S. Uitstekende eenmanspraktyk in dorp met goeie hospitaalaangeleentheid. Medisyne word voorgeskryf. Gemiddelde jaarlikse bruto inkomste £5,183. Een-sesde van inkomste word uit snykunde verkry. Twee aanstellings op die oomblik aan praktyk verbonde. Betaling kan gereël word.

ASSISTENTE/PLAASVERVANGERS VERLANG ASSISTANTS/LOCUMS REQUIRED

(A/O26) Assistant required immediately for Transvaal country practice. Must be fully bilingual. £75 p.m. plus free house and car expenses. Two appointments held.

(L.V122) Johannesburg from 18 December 1951 to 18 January 1952. £2 12s. 6d. p.d. plus all found and petrol and oil paid.

(L.V116) Free State. Month of August. £2 12s. 6d. p.d. plus all found and car allowance.

(L.V119) S.W.A. immediately for six weeks. £3 3s. p.d. plus all found. 10s. p.d. car depreciation allowance plus free petrol and oil.

(L.V107) Transvaal hospital town. 1st October for six weeks. £2 12s. 6d. p.d. plus all found and car allowance.

CAPE TOWN : KAAPSTAD

Medical House, P.O. Box 643, Cape Town. Telephone 2-6177
Mediese Huis, Posbus 643, Kaapstad. Telefoon 2-6177

(732) Eastern Province hospital town, prescribing and dispensing solus practice. Excellent climate. One appointment. Premium £1,000.

(720) Karoo. Bruto-ontvangste ongeveer £2,200 p.j. Premie van £500 sluit meubels, instrumente en geneesmiddels ter waarde van ongeveer £275 in.

(673) Near Durban. Average gross receipts £1,650 p.a. Prescribing. Premium required £1,275. One appointment £200 p.a. Good scope for expansion. Double-storied seven-roomed house situated on 1½ acres and separate surgery building for sale at £6,500. Surgery may possibly be rented by arrangement at approx. £8 p.m. Picturesque surroundings. Climate notably cooler than that of the coast.

ASSISTENTE/PLAASVERVANGERS VERLANG ASSISTANTS/LOCUMS REQUIRED

(730) Durban. Gentile Protestant woman assistant required for general practice including surgery, midwifery and gynaecology.

(754) For Transkei Native and D.S. practice. Initial salary £60 p.m. and all found. Definite view to partnership after trial period. Single man preferred.

(724) Cape Town. Excellent opportunity for assistant in Northern suburbs. Salary and terms of engagement to be mutually arranged.

(744) Noordweste. Assistent vir algemene praktyk met klein private verpleeginrigting. £65 p.m. plus vry losies. Kar beskikbaar.

(748) Langkloof area. For one month. Own car preferable. Married locum preferred but not essential. £2 12s. 6d. p.d.

CONSULTING ROOMS

(761) Cape Town. Rooms are available to share in centre of city.

MEDICAL EQUIPMENT FOR SALE

(758) Electrocardiograph. Sanborne Cardiette. Weight 24 lb. Perfect working condition. Used by Cape Town specialist physician. £160 or nearest offer.

(772) Surgery furniture comprising teak desk, revolving chair, couch, instrument and dressing tables, cupboards and waiting room furniture. Price £125. Instruments at £100.

S.A. Medical Journal S.A. Tydskrif vir Geneeskunde

The Journal is published weekly on Saturdays.
Office: Medical House, 35 Wale Street, Cape Town.
Postal Address: P.O. Box 643, Cape Town. Telephone 2-6177.
Telegrams: Medical, Cape Town.
Proprietors and Publishers: Medical Association of South Africa.

The Journal is supplied to all members whose names are furnished by the Branch Secretaries.

Subscription for non-members, 63s. per annum, post free, payable in advance, can be commenced at any time. Single copies, 2s.

Advertisement rates for domestic events, 5s. per insertion, repeats at half-price; other small single insertions, 25s. per inch, single column. Quotations for larger and serial advertisements on application. Copy must reach the Advertising Manager at least 21 days before publication.

All remittances, whether for subscriptions or advertisements, are payable to the Medical Association of South Africa, at the above address. Cheques should include exchange.

Author's reprints of papers can be obtained at cost. Order blanks will be forwarded to authors when page proofs are ready.

Public Service Commission

VACANCIES IN THE PUBLIC SERVICE

1. The attention of medical practitioners, registered with the South African Medical and Dental Council, is drawn to an advertisement appearing in the *Government and Provincial Gazette* of this week, inviting applications for the under-mentioned posts:—

Post	Department Administration	Salary Scale
District Surgeon	Health	£960 × 40—1,120.
District Surgeon	Health	£720 × 30—900 × 40—1,020.
Dentist	Health	£840 × 30—960.
Assistant Pathologist	Health	£780 × 30—900.
Medical Officer	Health	£600 × 30—840 plus privileges of quarters, rations, fuel, light and laundry.

2. In addition to salary a cost-of-living allowance at the rate of £256 per annum (married) and £80 per annum (single) is payable at present.

3. It is emphasized that full and detailed particulars of qualifications and previous experience (including military service) must be furnished but original certificates and testimonials should not be submitted. Application forms (Z. 83 and P.S.C. 8 (a)) are obtainable from the Secretary, Public Service Commission, Pretoria, to whom filled-in forms must be addressed.

4. The closing date for the receipt of applications is 18 August 1951.

(29995)

Doctor's Receptionist

Doctor's daughter, widow, Scottish, early thirties, well educated, well travelled, requires position as receptionist. Five years' experience with Harley Street Consultant. Willing to share responsibility of running home. Write 'A. H. M.', P.O. Box 643, Cape Town.

Glass Industry Sick Benefit Fund

Applications are invited from Medical Practitioners resident in Port Elizabeth for appointment as part-time Medical Officer to the Fund to commence duties on 6 August 1951. Full information regarding the appointment may be obtained from the Secretary of the Fund, P.O. Box 3051, Port Elizabeth.

Transvaalse Provinsiale Administrasie

VAKATURES BY PUBLIEKE HOSPITALE

Aansoeke word ingewag van kandidate met geskikte kwalifikasies vir die onderstaande poste by Transvaalse Publieke Hospitale.

Aansoeke moet gerig word aan die Superintendent van die betrokke hospitaal en moet volle besonderhede bevat aangaande die ouderdom, professionele, akademiese en taalkwalifikasies, ondervinding en huwelikstaats van die applikant en moet voorts 'n aanduiding bevat van die vroegste datum waarop diens aanvaar kan word.

Hospitaal	Vakature	Salaris	Aanmerkings
Boksburg	Deeltydse	£170	Vier ure per week. Plus vervoertoeleae teen offisiële tarief indien spreekkamers buite die munisipale gebied geleë is.
Benoni	Tandarts (1)		
Heidelberg	Verantwoordelike Geneesheer (1)	£1,000 × 50 —1,200	Plus £180 per jaar huistoeleae. Getroude plus (a) hieronder. Ongetroude plus (b) hieronder.

Johannesburg Hospitaalbestuur en die Universiteit van Witwatersrand:
Uroloog (1) £1,800

	Chirurgiese Registra- teur (1)	£620—780— 820—860	Getroude plus (a) hieronder. Ongetroude plus (b) hieronder. Moet vir ten minste twee jaar gekwalifiseerd wees. Getroude plus (a) hieronder. Ongetroude plus (b) hieronder.
Lydenburg	Deeltydse Algemene Praktisyn (1)	£510	Drie sessies per week teen £170 per sessie per jaar.
Middelburg	Deeltydse Algemene Praktisyn (1)	£680	Vier sessies per week teen £170 per sessie per jaar.
Vereeniging	Registra- teur in Narkose (1)	£620—780— 820—860	Getroude plus (a) hieronder. Ongetroude plus (b) hieronder.
	(a) £256 per jaar lewenskostetoeleae. (b) £80 per jaar lewenskostetoeleae. (c) Tydelike toelae.		

Van die persone wat aangestel word, sal verwag word om bevestigende sertifikate in te dien, asook om hulle te onderwerp aan 'n geneeskundige ondersoek by die betrokke hospitaal.

Aansoekvorms is verkrygbaar van die Provinsiale Sekretaris, Departement van Hospitaaldienste, Posbus 383, Pretoria.

Benewens jaarlikse salaris ontvang voltydse werknemers op die oomblik lewenskostetoeleae, spoorwegkonsessie en word verlof toegestaan ooreenkomstig die hospitaal-verlofregulasies.

Die sluitingsdatum van aansoeke vir die poste is 7 Augustus 1951.

(30021)

Locum Required

In large hospital town near Kimberley, from 1 April 1952 for a period of 12 months. Salary £75 per month, car and petrol provided for use in practice. Dwelling provided for single person. Applicant must be fully bilingual. Write 'A. H. H.', P.O. Box 643, Cape Town.

BRASS PLATES

TO MEDICAL COUNCIL SPECIFICATION

VICTOR C. GLAYSHER

165 BREE STREET
CAPE TOWN

PHONE
2-5111

Provincial Administration of the Cape of Good Hope (HOSPITAL DEPARTMENT)

HONORARY APPOINTMENTS

Applications are invited from registered medical practitioners for the following posts at the Somerset Hospital, Cape Town:

- (a) Honorary Neuro-Psychiatrist.
- (b) Honorary in Physical Medicine.
- (c) Honorary in Chest Surgery.

The appointments will be for five years, but may be terminable before the end of that period if and when the medical staffing of the Hospitals is reorganized.

Applications containing particulars of age, qualifications, experience, etc., with copies of recent testimonials, should be forwarded to the undersigned by noon on Saturday, 18 August 1951.

L. Welham
Branch Representative
(4739)

Hospital Department
58 Loop Street
Cape Town

Iscor Medical Benefit Fund

FULL-TIME DENTAL OFFICER

Applications are invited from suitably qualified Dentists for the above position.

The successful applicant will be required to submit a satisfactory certificate of health, and the appointment will be subject to the Fund's general conditions of service, leave regulations, etc.

Applications must be received on or before 27 August 1951. Application forms, together with full particulars, will be forwarded to bona fide applicants on written application to the undersigned.

Q. S. van Castricum
General Secretary

P.O. Box 450
Pretoria
4 July 1951

Yskor Mediese Bystandsfonds

VOLTYDSE TANDHEELKUNDIGE BEAMPTTE

Aansoeke om bogemelde pos word van paslik gekwalifiseerde tandarste ingewag.

Van die suksesvolle applikant sal verwag word om 'n bevestigende gesondheidsertifikaat in te dien, en die aanstelling sal aan die Fonds se algemene diensvoorwaardes, verlof-regulasies ens. onderworpe wees.

Aansoeke moet voor of op 27 Augustus 1951 ontvang word. Aansoekvorms en volledige besonderhede sal op skriftelike aansoek aan ondergetekende aan bona fide applikante gestuur word.

Q. S. van Castricum
Algemene Sekretaris

Postbus 450
Pretoria
4 Julie 1951

Bridgman Memorial Hospital (Non-European Maternity)

Applications are invited for the post of houseman at the above hospital as from 1 August 1951.

Salary scale £240 per annum, plus cost-of-living allowance, board and lodging and laundry. Apply to Medical Superintendent, Bridgman Memorial Hospital, High Street, Mayfair West, Johannesburg.

Partnership Offered

Cape Peninsula. Jewish doctor, able to operate, in practice established 25 years. Must be competent in medicine. Write 'A. H. L.', P.O. Box 643, Cape Town.

Borough of King William's Town VACANCY FOR PART-TIME MEDICAL OFFICER OF HEALTH

Applications are invited and will be received by the undersigned up to 30 September 1951, for the position of part-time Medical Officer of Health at a salary of £20 per month.

Applicants must give full particulars of qualifications, and the possession of the Diploma of Public Health or previous experience in Public Health work will be a recommendation.

Particulars as to duties and conditions of service may be obtained from the undersigned.

Applicants must state earliest date upon which duties can be commenced.

Canvassing of Councillors will be a disqualification.

H. E. Haugen

King William's Town
11 July 1951

Town Clerk

Munisipaliteit Kingwilliamstown

VAKATURE VIR DEELTYDSE GESONDHEIDSBEAMPTTE

Applikasies word ingewag en sal deur ondergetekende ontvang word tot 30 September 1951, vir die betrekking van deeltydse Gesondheidsbeampte teen 'n salaris van £20 per maand.

Applikante moet volle besonderhede van kwalifikasies gee en die besitting van die Diploma in Volksgesondheid of vorige ondervinding in Volksgesondheid werk sal 'n aanbeveling wees. Besonderhede omtrent dienste en voorwaardes van diens is verkrygbaar by ondergetekende.

Applikante moet die vroegste datum waarop dienste aanvaar kan word meld.

Werwing van Raadslede sal enige kandidaat diskwalifiseer.

H. E. Haugen

Kingwilliamstown
11 Julie 1951

Stadsklerk

Provincial Administration of the Cape of Good Hope (Hospitals Department)

GREY HOSPITAL, KING WILLIAM'S TOWN

POST OF HONORARY MEDICAL PRACTITIONER

Applications are invited from registered medical practitioners for the post of Honorary Medical Practitioner at this Institution.

Applications should be submitted before 4 August 1951 to Dr. J. J. Adendorff, Medical Superintendent, Grey Hospital, King William's Town.

Provinsiale Administrasie van die Kaap van Goeie Hoop (Hospitale Departement)

GREY HOSPITAAL, KING WILLIAM'S TOWN

POS VAN ERE MEDIESE PRAKTISENE

Aansoeke word gevra van geregistreerde mediese praktisyne vir die pos van Ere Mediese Praktisyne aan hierdie inrigting.

Aansoeke moet ingedien word voor 4 Augustus 1951 aan dr. J. J. Adendorff, Mediese Superintendent, Grey Hospitaal, King William's Town.

For Sale

X-ray equipment. 17-75 Victor Radiographic and Fluoroscopic unit with accessories. Write 'A. H. O.', P.O. Box 643, Cape Town.

Wanted to Purchase

Diathermy machine—Bircher or similar machine in good condition. Write 'A. H. L.', P.O. Box 643, Cape Town.



Printed by Cape Times Ltd., Parow, and Published by the Proprietors, THE MEDICAL ASSOCIATION OF SOUTH AFRICA, MEDICAL HOUSE, 35 Wale Street, Cape Town. P.O. Box 643. Telephone 2-6177. Telegrams: 'Medical'

KRAGTIGE PYNSTILLENDE MIDDEL



ALKALOIEDVRYE

Pynverdwende en Rumatiekmiddel. Vry van nadelige uitwerking op hart en asemhaling.

Bottels van 25, 100 en 500 tablette (5 grein). Bottels van 1 ons poeier. Dosies van 5 ampules (50 % oplossing, 2 ks.).

NOVALGIN
Handelsmerk

Nou in die Unie van Suid-Afrika vervaardig!

VIR GEWRIG- EN SPIERRUMATIEK, LENDEJIG, HEUPJIG, EN JIG

Dikwels doeltreffend wanneer salisilate faal.

Ook bekend as Novaldin.



Posbus 2461
DURBAN

Posbus 9536
JOHANNESBURG

Posbus 4186
KAAPSTAD

Winthrop Produkte (Edms.) Bpk.

NOW AVAILABLE

MOSIDAL

METHALLATAL, ABBOTT 0.15 Gm. tablets

***MOSIDAL is offered for the prevention
of nausea produced by the motion of***

It is dispensed only by or on the prescription of a Physician.
MOSIDAL 0.15 Gm. Tablets (Abbott) List 3816 are supplied
in Bottles of 25

from

Abbott

laboratories S.A. (Pty.) Ltd.

JOHANNESBURG • CAPE TOWN • DURBAN

